United States Environmental Protection Agency

Enforcement and Compliance Assurance (2224A)

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EPA

Protocol for Conducting Environmental Compliance Audits of Hazardous Waste Generators under the Resource Conservation and Recovery Act

EPA Office of Compliance

Notice

This document has been developed to assist in conducting environmental audits. The use of this document should be restricted to environmental audits only. For example, areas such as safety, transportation, occupational health, and fire protection are mentioned solely for clarification purposes. It is a summary of environmental regulations under RCRA but it is not a substitute for a comprehensive knowledge of the regulations themselves. Any variation between applicable regulations and the summaries contained in this guidance document are unintentional, and, in the case of such variations, the requirements of the regulations govern.

This document is intended solely as guidance to explain performance objectives for environmental auditors. Following the steps set forth in this guidance generally should result in compliance with those aspects of the regulations that it covers. The U.S. Environmental Protection Agency does not make any guarantee or assume any liability with respect to the use of any information or recommendations contained in this document. Regulated entities requiring additional information or advice should consult a qualified professional.

This guidance does not constitute rulemaking by the EPA and may not be relied on to create a substantive or procedural right or benefit enforceable, at law or in equity, by any person. EPA may take action at variance with this guidance and its internal procedures.

Acknowledgements

EPA would like to gratefully acknowledge the support of the U.S. Army Corps of Engineers Construction Engineering Research Laboratories (CERL) for their assistance in developing checklist items pertaining to the RCRA Subpart CC and for providing suggestions for the overall format of this document. In addition, acknowledgment is given to the representatives of the Synthetic Organic Chemical Manufacturing Association, Inc. (SOCMA) and the Chemical Manufacturers Association (CMA) who contributed their comments.

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Section I
Introduction

Background

The Environmental Protection Agency (EPA) is responsible for ensuring that businesses and organizations comply with federal laws that protect the public health and the environment. Recently, EPA has begun combining traditional enforcement activities with more innovative compliance approaches. In its Strategic Plan, the Agency recognizes the need to assist the regulated community by providing compliance assistance and guidance that will promote improved compliance and overall environmental performance (see Exhibit 1). EPA encourages regulated entities to recognize compliance as the floor, rather than the ceiling, of environmental performance by internalizing and implementing sound environmental practices. As part of that effort, EPA is encouraging the development of self-assessment programs at individual facilities. Voluntary audit programs play an important role in helping companies meet their obligation to comply with environmental requirements. Such assessments can be a critical link, not only to improved compliance, but also to improvements in other aspects of an organization's performance. For example, environmental audits may identify pollution prevention opportunities that can substantially reduce an organization's operating costs.

Over the years, EPA has encouraged regulated entities to initiate environmental audit programs that support and document compliance with environmental regulations. EPA has developed this audit protocol to provide regulated entities with specific guidance in periodically evaluating their compliance with federal environmental requirements.

Exhibit 1 - EPA's Credible Deterrent Goal

Within its Strategic Plan, EPA has established a goal to ensure full compliance with the laws intended to protect human health and the environment. Within the framework of this goal, EPA's objectives are as follows:

C Identify and reduce significant non-compliance in high priority program areas, while maintaining a strong enforcement presence in all regulatory program areas,

C Promote the regulated communities' voluntary compliance with environmental requirements through compliance incentives and assistance programs.

EPA's Policy on Environmental Audits

In 1986, in an effort to encourage the use of environmental auditing, EPA published its "Environmental Auditing Policy Statement" (see 51 FR 25004). The 1986 audit policy states that "it is EPA policy to encourage the use of environmental auditing by regulated industries to help achieve and maintain compliance with environmental laws and regulation, as well as to help identify and correct unregulated environmental hazards." In addition, EPA defined environmental auditing as a systematic, documented, periodic, and objective review of facility operations and practices related to meeting environmental requirements. The policy also identified several objectives for environmental audits:

< verifying compliance with environmental requirements,

< evaluating the effectiveness of in-place environmental management systems, and

< assessing risks from regulated and unregulated materials and practices.

Exhibit 2 – EPA's 1995 Audit Policy

Under the final Audit/Self Policing Policy, EPA will not seek gravity-based penalties and will not recommend criminal prosecutions for companies that meet the requirements of the policy. Gravity-based penalties represent the "seriousness" or punitive portion of penalties over and above the portion representing the economic gain from non-compliance. The policy requires companies:

- to promptly disclose and correct violations,
- to prevent recurrence of the violation, and
- to remedy environmental harm.

The policy excludes:

- repeated violations,
- violations that result in serious actual harm, and
- violations that may present an imminent and substantial endangerment.

Corporations remain criminally liable for violations resulting from conscious disregard of their legal duties, and individuals remain liable for criminal wrongdoing. EPA retains discretion to recover the economic benefit gained as a result of noncompliance, so that companies will not be able to obtain an economic advantage over their competitors by delaying investment in compliance. Where violations are discovered by means other than environmental audits or due diligence efforts, but are promptly disclosed and expeditiously corrected, EPA will reduce gravity-based penalties by 75% provided that all of the other conditions of the policy are met.

As a result of EPA's new audit policy, through March 1998, 247 companies have disclosed environmental violations at more than 760 facilities and EPA has reduced or waived penalties for 89 companies and 433 facilities.

The final Audit/Self-Policing Policy was published in the Federal Register on December 22, 1995 (60 FR 66706). It took effect on January 22, 1996. For further information, contact the Audit Policy Docket at (202) 260-7548 or call (202) 564-4187.

In 1995, EPA published "Incentives for Self-Policing: Discovery, Disclosure, Correction and Prevention of Violations" which both reaffirmed and expanded its 1986 audit policy. The 1995 audit policy offers major incentives for entities to discover, disclose and correct environmental violations. Under the 1995 policy, EPA will not seek gravity-based penalties or recommend criminal charges be brought for violations that are discovered through an "environmental audit" (as defined in the 1986 audit policy) or a management system reflecting "due diligence" and that are promptly disclosed and corrected, provided that other important safeguards are met (see Exhibit 2). These safeguards protect health and the environment by precluding policy relief for violations that cause serious environmental harm or may have presented imminent and substantial endangerment, for example.

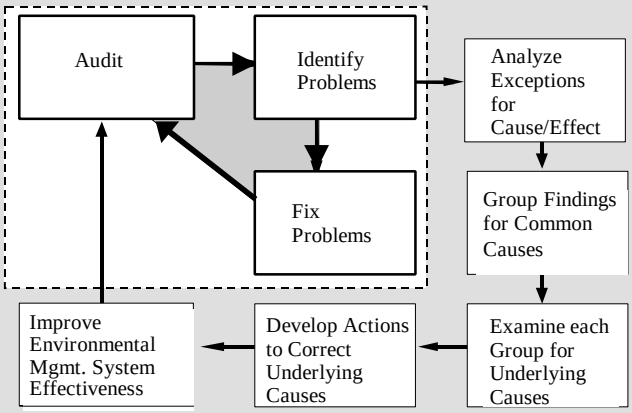
Purpose of the Protocols for Conducting Environmental Compliance Audits

This protocol, which is part of a set containing other area or statutory specific audit protocols, is a tool to assist you in conducting environmental audits, which should inform you whether your facility is in compliance with federal regulations. EPA has developed these audit protocols to assist and encourage businesses and organizations to perform environmental audits and disclose violations in accordance with EPA's audit policy. The audit protocols are intended to promote consistency among regulated entities when conducting environmental audits and to ensure that audits are conducted in a thorough and comprehensive manner.

Each protocol provides guidance on key requirements, defines regulatory terms, and gives an overview of the federal laws affecting a particular environmental management area. It also includes a checklist containing detailed procedures for conducting a review of facility conditions. In order to use these documents effectively, you should be familiar with basic environmental auditing practices and the relevant environmental regulations under Title 40 of the Code of Federal Regulations (CFR). The audit protocols are not intended to be exclusive or limiting with respect to procedures that may be followed. EPA recognizes that other audit approaches and techniques may be effective in identifying and evaluating a facility's environmental status and in formulating recommendations to correct observed deficiencies.

These protocols can be used as a basis to implement, upgrade, or benchmark environmental management activities. The protocols are a management tool for measuring and improving environmental performance by correcting deficiencies uncovered by the audit (see Exhibit 3). This process is perhaps the key element to a high quality environmental management program and will function best when an organization identifies the "root causes" of each audit finding. Root causes are those breakdowns in management oversight, information exchange, and evaluation that allow environmental problems to recur. Thus, while an organization may have developed an excellent record of dealing with a symptom, such as spill response, the underlying problem or "root cause" has not been addressed. Furthermore, identifying the root cause of an audit finding can mean identifying not only the failures that require correction but also the successes. In each case a root cause analysis should uncover the failures while promoting the successes so that an organization can make continual progress toward environmental excellence.

Exhibit 3 - Corrective Action Model



How to Use This Protocol

To conduct effective compliance audits, the auditor or audit team needs to possess sound working knowledge of the operations and processes to be reviewed, the relevant regulations that apply to a given facility, and of acceptable auditing practices. The audit protocol should be used as a planning tool to assist the auditor in understanding the requirements for conducting a comprehensive audit. This document will provide the user with a generic audit approach to regulatory issues that may require closer examination. Once the general issues are identified through the use of this protocol, the auditor should perform a more detailed investigation to determine the specific area of noncompliance to be corrected. The auditor should review federal, state and local

environmental requirements and annotate the protocol, as required, to include other applicable requirements not included in the protocol.

The auditor also should determine which regulatory agency has authority for implementing an environmental program so that the proper set of regulations is consulted. State programs that implement federally mandated programs may contain more stringent requirements. This protocol should not be used as a substitute for the applicable regulations.

The collective set of the audit protocols developed by EPA is designed to support a wide range of environmental auditing needs; therefore several of the protocols in this set or sections of an individual protocol may not be applicable to a particular facility. Each protocol is not intended to be an exhaustive set of procedures; rather it is meant to inform the auditor, about the degree and quality of evaluation essential to a thorough environmental audit. EPA is aware that other audit approaches may provide an effective means of identifying and assessing facility environmental status and in developing corrective actions.

Each protocol contains the following information:

- List of acronyms and abbreviations used in the document,
- Applicability - provides guidance on the major activities and operations included in the protocol and a brief description of how the protocol is applied,
- Review of federal legislation - identifies key issues associated with the subject protocol area,
- State and local regulations - identifies typical issues normally addressed in state and local regulations but does not present individual state/local requirements,
- Key compliance requirements - summarizes the overall thrust of the regulations for that particular protocol,
- Key compliance definitions - defines important terms,
- Typical records to review - highlights documents, permits and other pertinent paperwork that should be reviewed by an auditor and reconciled against regulatory requirements,
- Typical physical features to inspect - highlights pollution control equipment, manufacturing and process equipment and other areas that should be visited and evaluated during an audit,
- Index for checklist users - outlines different areas of the checklist that may pertain to the facility being audited,
- Checklist - matches the regulatory requirements with the tasks that should be accomplished by the auditor, and
- Appendices - supporting information for the checklist (e.g., regulatory deadlines, lists of contaminants, wastes, and required testing procedures). Note: information contained in the appendices is dated and should be verified with a current version of the applicable federal regulations.

The checklist delineates what should be evaluated during an audit. The left column states either a requirement mandated by regulation or a good management practice that exceeds the requirements of the federal regulations. Good management practices are distinguished from regulatory requirements in the checklist by the acronym (MP) and are printed in italics. The regulatory citation is given in parentheses after the requirement. The right column gives instructions to help conduct the evaluation. These instructions are performance objectives that should be accomplished by the auditor. Some of the performance objectives may be simple documentation checks that take only a few minutes; others may require a time-intensive physical inspection of a facility.

EPA is presently is the process of developing a series of audit protocol application guides to serve as companion documents to the set of protocols. The application guides will provide the auditor with a matrix that identifies and cross-references certain site-specific activities or unit operations with particular environmental aspects of that activity. For example, managing hazardous waste containers is a site-specific activity with environmental concerns, such as possible releases to air, and water, that may require additional review through auditing. By using the application guide the user can identify facility specific practices that require more in-depth review. In

addition, the application guides will also direct the user to specific protocols and sections (e.g., checklist items) of the protocol to determine areas that are regulated and require auditing.

List of Acronyms and Abbreviations

AST	Aboveground storage tank
BTU	British thermal unit
CAA	Clean Air Act
CAMU	Corrective action management unit
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act (or Superfund)
CESQG	Conditionally exempt small quantity generator
CFC	Chlorofluorocarbon
CFR	Code of Federal Regulations
CSD	Contaminated soil and debris
CWA	Clean Water Act
DOT	Department of Transportation
EPA	Environmental Protection Agency
FR	Federal Register
ft.	Feet
gal.	Gallon
h	Hour
HOC	Halogenated organic compound
hp	Horsepower
HSWA	Hazardous and Solid Waste Amendments
HWM	Hazardous waste management
ID	Identification
kg	Kilogram
km	Kilometer
L	Liter
lb.	Pound
LDR	Land disposal restriction
LQG	Large quantity generator
OECD	Organization for Economic Coordination and Development
m	Meter
Mg	Megagram
MJ	Megajoule
mm	Millimeter
mo	Month
MP	Management practice
MSDS	Material Data Safety Sheet
MW	Megawatt
NOV	Notice of violation
NRC	National Response Center
PCB	Polychlorinated biphenyl
PL	Public Law
POTW	Publicly owned treatment works
ppm	Part per million
qt.	Quart
RCRA	Resource Conservation and Recovery Act
scf	Standard cubic foot
scm	Standard cubic meter
SDWA	Safe Drinking Water Act

SPCC	Spill prevention, control, and countermeasure
SQG	Small quantity generator
TSCA	Toxic Substances Control Act
TSDF	Treatment, storage, and disposal facility
UIC	Underground injection control
U.S.	United States
USC	United States Code
UST	Underground storage tank
VO	Volatile organic
VOC	Volatile organic compound
yr	Year

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Section II
Audit Protocol

Applicability

This booklet is intended to help inform facilities that generate hazardous waste, and it includes requirements for waste minimization and export of hazardous waste. There is a separate booklet that applies to treatment, storage, and disposal facilities (TSDFs).

Not all checklist items will be applicable to a particular facility. Guidance is provided on the checklists to direct the auditor to the regulations typically applicable to the type of hazardous waste activities/facilities on the site.

There are numerous environmental regulatory requirements administered by federal, state, and local governments. Each level of government may have a major impact on areas at the facility that are subject to the audit. Therefore, auditors are advised to review federal, state, and location regulations in order to perform a comprehensive audit.

Review of Federal Legislation

The Resource Conservation and Recovery Act, Subtitle C (1976)
The Resource, Conservation and Recovery Act (RCRA) of 1976, which amended the Solid Waste Disposal Act of 1965, addresses hazardous (Subtitle C) and solid (Subtitle D) waste management activities. Subtitle C of RCRA, 42 U.S. Code (USC) sections 6921-6939b, establishes standards and procedures for the handling, storage, treatment, and disposal of hazardous waste. For example, RCRA prohibits the placement of bulk or noncontainerized liquid hazardous waste or free liquids containing hazardous waste into a landfill. It also prohibits the "land disposal" of specified wastes and disposal of hazardous waste through underground injection within 1/4 mile (0.40 km) of an underground source of drinking water. Pursuant to Subtitle C of RCRA, the Environmental Protection Agency (EPA) promulgated regulations at 40 CFR Parts 260-299, establishing a "cradle-to-grave" system that governs hazardous waste from the point of generation to its treatment or disposal.

The 1984 Hazardous and Solid Wastes Amendments (HSWA) greatly expanded the requirements and coverage of RCRA. Perhaps the most significant provision of HSWA is the prohibition on the land disposal of hazardous waste. The land disposal restrictions (LDRs) promulgated by EPA essentially ban the disposal of untreated liquid hazardous waste or hazardous waste containing free liquids in landfills and establish treatment standards for these wastes. In addition to the new statutory and regulatory requirements imposed by HSWA, a new subtitle to the act was created to govern underground storage tanks (USTs). **This document does not provide audit guidance for underground or above ground storage tanks regulated under RCRA.** Audit guidance and technical information on above and underground storage tanks is provided by EPA in a separate protocol titled *Protocol for Conducting Environmental Compliance Audits of Underground and Above Ground Storage Tanks* and is expected to be available in 1999.

After assessing air emissions at TSDFs, the EPA ascertained that volatile organic chemicals (VOCs) adversely affect human health and welfare. In response, EPA promulgated three subparts of RCRA rules designed to control VOCs. In 1990, EPA issued Subparts AA and BB, which amended 40 CFR Parts 264 and 265. Subpart AA governs organic chemical emissions from certain hazardous waste treatment processes, while Subpart BB governs equipment that contains or contacts hazardous waste with at least 10% organic chemicals by weight. Subpart CC includes requirements for controlling VOC emissions from tanks, surface impoundments, containers, and certain miscellaneous "Subpart X" units. The Subpart CC Final Rule was signed on December 6, 1994, and the Final Rule Amendments were signed on October 4, 1996.

State and Local Regulations

RCRA encourages states to develop their own parallel regulatory programs for hazardous waste management. This includes enacting statutory authority and operating hazardous waste regulatory programs. Many states have met the requirements established by EPA in 40 CFR 271 (Requirements for Authorization of state Hazardous Waste Programs) and have been approved to manage their own state programs. Many states have adopted the EPA regulations by reference or have promulgated regulations that are identical to the EPA regulations, while other states have promulgated regulations stricter than the federal RCRA. These differences between individual state regulations and the federal program require that auditors check the status of their state's authorization and then determine which regulations apply. For example, some states have listed additional waste as hazardous waste (used oil, PCBs, asbestos). Since the section checklists are based exclusively on the requirements of the federal RCRA program, the auditor should determine in what ways the applicable state program differs from the federal program.

Key Compliance Requirements

Identification of Hazardous Waste
Proper identification of hazardous wastes is a complex task that is fundamental to determining which materials at a facility are subject to RCRA Subtitle C requirements. To determine whether or not a material is a hazardous waste, a facility must answer four questions about each waste stream. First, is the material a "solid waste," as defined by the RCRA regulations? The regulatory framework for distinguishing solid and hazardous wastes can be found at 40 CFR §§261.2 and 261.3. Second, does it fit one of the exclusions from the definition of solid or hazardous waste? Materials that have been excluded are listed in 40 CFR §261.4. Third, is it a listed or characteristic hazardous waste? Listed and characteristic wastes are defined in 40 CFR §261, Subparts B, C, and D. And finally, has the waste been delisted?

Waste Analysis
A solid waste is a hazardous waste if it is a *listed* hazardous waste (defined at 40 CFR §261, Subpart D) or if it exhibits any of the *characteristics* defined in 40 CFR §261, Subpart C. In order to determine whether the waste exhibits any of the characteristics, the generator generally must use analytical methods capable of quantitatively identifying the contaminants in question. Unlike characteristic wastes, listed wastes are generally determined based on the generator's knowledge of its manufacturing process or the chemicals used.

A generator can meet waste analysis requirements using several methods or combinations of methods. Wherever feasible, the preferred method is to conduct sampling and laboratory analysis because it is more accurate than other options. However, generators can also apply "acceptable knowledge," which includes (1) process knowledge; (2) waste analysis data obtained from facilities that send their waste off-site for treatment, storage, or disposal; or (3) records of analysis performed before the effective date of RCRA regulations, assuming the information is current and accurate.

Process knowledge involves obtaining detailed information on a waste from existing published or documented waste analysis data or studies conducted on hazardous waste generated by processes similar to that which generated the waste.

When using process descriptions and existing data, a facility must carefully scrutinize whether (1) there are any differences between the processes documented and the actual processes and (2) the data used are accurate and current, including (a) whether any wastes are newly regulated as hazardous wastes, (b) whether existing data are sufficient to identify any new constituent concentration limits, and (c) the information is based on currently valid analytical techniques.

Generator Requirements

The responsibilities of any particular facility are based on the amount of hazardous waste being generated in one calendar month. Typical hazardous wastes include solvents, paint, contaminated antifreeze or oil, and sludges. In some states, waste oil and other substances have been classified as a hazardous waste and therefore need to be included in the total amount of waste generated. Under federal regulations there are three classifications of generators:

1. A Conditionally Exempt Small Quantity Generator (CESQG) generates no more than 100 kg (220.46 lb.) of hazardous waste or 1 kg (2.20 lb.) of acutely hazardous waste in a calendar month. A CESQG also may not accumulate on-site more than 1,000 kg (2,204.62 lb.) of hazardous waste at any one time. When **either** the volume of hazardous waste produced in one calendar month exceeds 100 kg (220.46 lb.) **or** more than 1,000 kg (2,204.62 lb.) of hazardous waste have accumulated on-site, the facility is required to comply with the more stringent standards applicable to a Small Quantity Generator (SQG). When the volume of acutely hazardous waste exceeds 1 kg of spill residue, contaminated soil, waste or other debris exceeds 100 kg, then the waste is subject to standards applicable to large quantity generators (LQGs);

2. An SQG generates between 100 kg (220.46 lb.) and 1,000 kg (2,204.62 lb.) of hazardous waste in a calendar month. The hazardous waste cannot accumulate on-site for more than 180 days unless the waste is transported more than 200 miles (321.87 km) to a treatment, storage and disposal facility (TSDF). If the hazardous waste must be transported more than 200 miles, it can accumulate for up to 270 days. At no time is there to be more than 6,000 kg (13,227.73 lb.) of hazardous waste accumulated at the facility. When the volume of hazardous waste generated in one month exceeds 1,000 kg (2,204.62 lb.) of nonacutely hazardous waste or 1 kg (2.20 lb.) of acutely hazardous waste or the accumulation time limit is exceeded, the facility is required to comply with the standards for an LQG. When more than 6,000 kg (13,227.73 lb.) of hazardous waste is stored on-site, the SQG is required to obtain a storage permit and comply with the requirements of 40 CFR 264 and 40 CFR 265;

3. An LQG generates more than 1,000 kg (2,204.62 lb.) of hazardous waste in a calendar month. (NOTE: Using water, which weighs approximately 8.34 lbs./gal (3.78 kg/gal or 1 kg/L) as a basis of measurement, 100 kg (220.46 lb.) would equal about 26.4 gallons (100 L) (almost one-half of a 55-gal. (208.2 L) drum); 1,000 kg (2,204.62 lb.) would equal about 264 gallons (1000 L) (almost five 55-gal. drums)).

Whether the facility is a CESQG, SQG, or a LQG determines whether and how the RCRA regulations apply to that facility. Storage areas connected with generation points are often referred to as 90 day storage areas. Regardless of the amount of hazardous waste generated, the regulations require every facility to test or use knowledge of materials or processes used to determine if its waste is a listed hazardous waste or exhibits one of four hazardous characteristics (ignitability, corrosivity, toxicity, reactivity).

Comparison of RCRA Generator Requirements

Requirement	CESQG	SQG	LQG
Determine Whether Solid Waste is Hazardous	Yes	Yes	Yes
Quantity Limits	≤100 kg/mo (220.46 lb./mo)	100 kg/mo (220.46 lb.) to 1,000 kg/mo (2,204.62 lb.)	>1,000 kg/mo (2,204.62 lb./mo)
Acute Waste Limits	≤1 kg/mo (2.20 lb./mo)	≤1 kg/mo (2.20 lb./mo)	None
Facility Receiving Waste	State approved, RCRA permitted, interim status, or exempt recycling facility	RCRA permitted, interim status, or exempt recycling facility	RCRA permitted, interim status, or exempt recycling facility
EPA ID Number	Not required	Required	Required
RCRA Personnel Training	Not required	Basic training required	Required
Exception Report	Not required	Required within 60 days of hazardous waste being accepted by initial transporter	Required within 45 days of hazardous waste being accepted by initial transporter
Biennial Report	Not required	Not required	Required
On-site Accumulation Limits (without permit)	1,000 kg (2,204.62 lb.)	6,000 kg (13,227.73 lb.)	Any quantity
Accumulation Time Limits (without permit)	None	180 days [or 270 days if transported more than 200 mi. (321.87 km)] EPA may grant 30 days for unforeseen, temporary, and uncontrollable circumstances.	90 days + EPA may grant 30 days for unforeseen, temporary, and uncontrollable circumstances.
Storage Requirements for Accumulated Hazardous Waste	None	Basic requirements with technical standards for containers or tanks	Full compliance with management of containers or tanks
Use Manifests	No	Yes, unless the waste is reclaimed under contractual agreement in accordance with the requirements of 40 CFR 262.20 (e).	Yes, unless the waste is reclaimed under contractual agreement in accordance with the requirements of 40 CFR 262.20 (e).
Contingency Plan	No	No	Required

Pre-Transport Requirements
Hazardous waste shipped off-site must be packaged, labeled and marked. The vehicles used to transport the waste must be placarded in accordance with DOT regulations.

90 Day Storage
90 day storage is an area in or near the place where hazardous waste is accumulated or stored before being sent off-site for disposal. Storage in these areas is temporary, and the permissible length of time for accumulation depends on whether the facility is classified as an LQG, SQG, or CESQG.

Satellite Accumulation Point Management
A satellite accumulation point is an area at or near the point of generation where no more than 55 gal. (208.20 L) of a hazardous waste or one qt. (0.95 L) of acutely hazardous waste is accumulated. The satellite accumulation point is to remain under the control of a single operator. When the 55 gal. (208.20 L) limit is reached, the operator has three days to move the waste to a 90 day storage area or a permitted TSDF. These standards apply to SQGs and LQGs only.

Waste Minimization/Pollution Prevention
Waste minimization and pollution prevention programs are being increasingly discussed and implemented by both environmental managers and environmental policy makers. Usually defined as a reduction in the volume and toxicity of waste, waste minimization often pays for itself through reduced disposal costs, operating costs, and liability. While these cost savings are often enough to justify a program, there are an increasing number of voluntary and mandatory programs that drive waste minimization/pollution prevention.

Under RCRA, LQGs are required to sign a certification on each manifest stating that they have a program in place to reduce waste to the degree that is economically feasible and to select a disposal method that minimizes threats to human health and the environment. SQGs must show a "good faith effort" to minimize waste and to select the best waste management method available.

EPA has also developed guidelines on a waste minimization program for generators. Issued in 58 Federal Register (FR) 31114 on May 28, 1993, the Interim Final Guidance to Hazardous Waste Generators on the Elements of a Waste Minimization Program is intended to provide guidance to generators of regulated hazardous wastes. The program includes:

- Provisions for top management assurance that waste minimization is a company-wide effort;
- Characterization of waste generation and waste management costs;
- Periodic waste minimization assessments;
- A cost allocation system;
- Encouragement of technology transfer; and
- Program implementation and evaluation.

For further information regarding the RCRA regulations, contact U.S. EPA's RCRA/UST, Superfund and EPCRA Hotline at 800-424-9346 (or 703-412-9810 in the D.C. area) from 9 a.m. to 6 p.m., Monday through Friday.

This EPA hotline provides up-to-date information on regulations developed under RCRA, CERCLA (Superfund), and the Oil Pollution Act. The hotline can assist with Section 112(r) of the Clean Air Act (CAA) and Spill Prevention, Control and Countermeasures (SPCC) regulations. The hotline also responds to requests for relevant documents and can direct the caller to additional tools that provide a more detailed discussion of specific regulatory requirements.

Key Terms and Definitions

Acknowledgement of Consent
The cable sent to the EPA from the U.S. Embassy in a receiving country that acknowledges the written consent of the receiving country to accept the hazardous waste and describes the terms and conditions of the receiving country's consent to the shipment (40 CFR 262.51).

Acute Hazardous Waste
Any waste listed under 40 CFR 261.31 through 261.33(c) with a hazard code of H. These also include EPA hazardous waste numbers F020, F021, F022, F023, F026, and F027 (40 CFR 261.31) and the P listed wastes in 40 CFR 261.33(e).

Approved State Program
A RCRA program administered by a state that has been approved by EPA according to 40 CFR 271.

Average Volatile Organic (VO) Concentration
The mass-weighted average VO concentration of a hazardous waste (40 CFR 265.1081).

Boiler
An enclosed device using controlled flame combustion and having the following characteristics:

- The unit has physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases; and
- The unit's combustion chamber and primary energy recovery section(s) must be of integral design; and
- While in operation the unit maintains a thermal energy recovery efficiency of at least 60 percent; and
- The unit has been approved by the Administrator of EPA; and
- The unit must export and utilize at least 75% of the recovered energy (40 CFR 260.10).

EPA may also decide on a case-by-case basis that certain enclosed devices using controlled flame combustion are boilers even though they may not otherwise meet the definition of boiler.

Certification
A statement of professional opinion based upon knowledge and belief (40 CFR 260.10).

Characteristics of Hazardous Waste
The characteristics of ignitibility, corrosivity, reactivity, and toxicity that identify hazardous waste (40 CFR 261.20 through 261.24).

Competent Authorities
The regulatory authorities of concerned countries having jurisdiction over transfrontier movements of wastes destined for recovery operations (40 CFR 262.81).

Consignee
The ultimate treatment, storage, or disposal facility in a receiving country to which the hazardous waste will be sent (40 CFR 262.51).

Container
Any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled (40 CFR 260.10).

Containment Building
A hazardous waste management unit that is used to store or treat hazardous waste under 40 CFR 264.1100 through 264.1102 and 40 CFR 265.1100 through 265.1102 (40 CFR 260.10).

Contingency Plan
A document setting out an organized, planned, and coordinated course of action to be followed in case of a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment (40 CFR 260.10).

Debris
Solid material exceeding a 60 mm particle size that is intended for disposal and that is a manufactured object, plant or animal matter, or natural geologic material. The following materials are not debris: any material for which a specific treatment standard is provided; process residuals such as smelter slag and residues from the treatment of waste, wastewater, sludges, or air emissions residues; and intact containers of hazardous waste that are not ruptured and retain at least 75 percent of their original volume (40 CFR 268.2).

Discharge or Hazardous Waste Discharge
The accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying, or dumping of hazardous waste into or on any land or water (40 CFR 260.10).

Elementary Neutralization Unit
A device which is used for neutralizing hazardous wastes that are hazardous only because they exhibit corrosivity (as defined in 40 CFR 261.22) or are listed in Subpart D of 40 CFR 261 and that meet the definition of tank, tank system container, transport vehicle, or vessel (40 CFR 260.10).

Enclosure
A structure that surrounds a tank or container, captures organic vapors emitted from the tank or container, and vents the captured vapors through a closed-vent system to a control device (40 CFR 265.1081).

EPA Hazardous Waste Number
The number assigned by EPA to each hazardous waste listed in Part 261, Subpart D and to each characteristic identified in Part 261, Subpart C (40 CFR 260.10).

EPA Identification Number
The number assigned by EPA to each generator, transporter, and treatment, storage, or disposal facility (40 CFR 260.10).

Existing Hazardous Waste Management Facility or Existing Facility
A facility which was in operation or for which construction commenced on or before November 19, 1980 (40 CFR 260.10).

Facility
All contiguous land and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage or disposal operational units (e.g., one or more landfills, surface impoundments, or combination of them) (40 CFR 260.10).

Fixed Roof
A cover that is mounted on a unit in a stationary position and does not move with fluctuations in the level of the material managed in the unit (40 CFR 265.1081).

Food-Chain Crops
Tobacco, crops grown for human consumption, and crops grown for feed for animals whose products are consumed by humans (40 CFR 260.10).

Free Liquids
Liquids which readily separate from the solid portion of a waste under ambient temperature and pressure (40 CFR 260.10).

Generator
Any person, by site, whose act or process produces hazardous waste identified or listed in 40 CFR Part 261, or whose act first causes a hazardous waste to become subject to regulation (40 CFR 260.10).

Groundwater
Water below the land surface in a zone of saturation (40 CFR 260.10).

Halogenated Organic Compounds (HOC)
Those compounds having a carbon-halogen bond which are listed in Appendix III (40 CFR 268.2).

Hazardous Debris
Debris that contains a hazardous waste or that exhibits a characteristic of hazardous waste (40 CFR 268.2).

Hazardous Waste
A solid waste identified as a characteristic or listed hazardous waste in 40 CFR 261.3 (40 CFR 260.10).

Hazardous Waste Constituent
A constituent that caused the hazardous waste to be listed in 40 CFR Part 261, Subpart D (lists of hazardous wastes from non-specific and specific sources, and listed hazardous wastes), or a constituent listed in the table of maximum concentrations of contaminants for the toxicity characteristic) (40 CFR 260.10).

Hazardous Waste Management Unit
A contiguous area of land on or in which hazardous waste is placed, or the largest area in which there is significant likelihood of mixing hazardous waste constituents in the same area. Examples are a surface impoundment, a waste pile, a treatment area, a landfill cell, an incinerator, a tank and its associated piping and underlying containment system, and a container storage area. A container alone does not constitute a unit; the unit includes containers and the land or pad upon which they are placed (40 CFR 260.10).

In Light Liquid Service
The piece of equipment contains or contacts a waste stream where the vapor pressure of one or more of the organic components in the stream is greater than 0.3 kPa at 20 degrees Celsius, the total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight, and the fluid is a liquid at operating conditions (40 CFR 264.1031).

In Light Material Service
The container is used to manage material for which both of the following conditions apply:
- The vapor pressure of one or more of the organic constituents in the material is greater than 0.3 kPa at 20 degrees Celsius, and
- The total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight (40 CFR 265.1081).

Incompatible Waste
A hazardous waste that is unsuitable for:
- Placement in a particular device or facility because it may cause corrosion or decay of containment materials (e.g., container liners or tank walls); or
- Commingling with another waste or material under uncontrolled conditions because the commingling conditions produce heat or pressure, fire or explosion, violent reaction, toxic dusts, mist, fumes, or gases, or flammable fumes or gases (40 CFR 260.10).

Individual Generation Site
The contiguous site at or on which one or more hazardous wastes are generated. An individual generation site, such as a large manufacturing plant, may have one or more sources of hazardous waste, but is considered a single or individual generation site if the site or property is contiguous (40 CFR 260.10).

Industrial Furnace
Any of the following enclosed devices that are integral components of manufacturing processes and that use controlled flame devices to accomplish recovery of materials or energy: cement kilns; lime kilns; aggregate kilns; phosphate kilns; coke ovens; blast furnaces; smelting, melting and refining furnaces; titanium dioxide chloride process oxidation reactors; methane reforming furnaces; pulping liquor recovery furnaces; combustion devices used in the recovery of sulfur values from spent sulfuric acid; certain halogen acid furnaces; and other devices designated by the Administrator of EPA (40 CFR 260.10).

Inner Liner
A continuous layer of material placed inside a tank or container which protects the construction materials of the tank or container from the contained waste or reagents used to treat the waste (40 CFR 260.10).

International Shipment
The transportation of hazardous waste into or out of the jurisdiction of the United States (40 CFR 260.10).

Land Disposal
Placement of hazardous waste in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, underground mine or cave, or placement in a concrete vault or bunker intended for disposal purposes (40 CFR 268.2).

Large Quantity Generator
A facility generating hazardous waste in quantities greater than 1000 kg (2,204.62 lbs.) per calendar month or greater than 1 kg of acutely hazardous waste per calendar month (40 CFR 260.10).

Leachate
Any liquid, including any suspended components in the liquid, that has percolated through or drained from hazardous waste (40 CFR 260.10).

Leak Detection System
A system capable of detecting the failure of either the primary or secondary containment structure or the presence of a release of hazardous waste or accumulated liquid in the secondary structure. Such a system must employ operational controls (e.g., daily visible containment for releases into the secondary containment system of aboveground tanks) or consist of an interstitial monitoring device designed to detect continuously and automatically the failure of the primary or secondary containment structure or the presence of a release of hazardous waste into the secondary containment structure (40 CFR 260.10).

Malfunction
Any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operations are not malfunctions (40 CFR 265.1081).

Management or Hazardous Waste Management
The systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous waste (40 CFR 260.10).

Management Practice (MP)
Practices which, although not mandated by law, are encouraged to promote safe operating procedures.

Manifest
The shipping document originated and signed by the generator containing the information required by 40 CFR 262, Subpart B (40 CFR 260.10).

Manifest Document Number
The EPA 12-digit identification number assigned to the generator plus a unique 5-digit number assigned to the manifest by the generator for recording and reporting purposes (40 CFR 260.10).

Movement
That hazardous waste transported to a facility in an individual vehicle (40 CFR 260.10).

No Detectable Organic Emissions
No escape of organics to the atmosphere as determined by using the procedures specified in 40 CFR 265.1084(d) (40 CFR 265.1081).

Nonwastewaters
Wastes that do not meet the criteria for wastewaters (40 CFR 268.2). (See definition of wastewater.)

Notifier
The person under jurisdiction of the exporting country who has, or will have at the time the planned transfrontier movement commences, possession or other forms of legal control of the wastes and who proposes their transfrontier movement for the ultimate purpose of submitting them to recovery operations. When the United States (U.S.) is the exporting country, notifier is interpreted to mean a person domiciled in the United States (40 CFR 262.81).

OECD Country
Designated member countries of the Organization for Economic Coordination and Development (OECD) consisting of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States. Canada and Mexico are considered OECD member countries under the RCRA regulations only for the purpose of transit (40 CFR 262.58).

Open Burning
The combustion of any material without the following characteristics:
- Control of combustion air to maintain adequate temperature for efficient combustion,
- Containment of the combustion-reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion,
- Control of emission of the gaseous combustion products (40 CFR 260.10).

Pile
Any non-containerized accumulation of solid, nonflowing hazardous waste that is used for treatment or storage that is not a containment building (40 CFR 260.10).

Point Source
Any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture (40 CFR 260.10).

Point of Waste Treatment
The point where a hazardous waste exits a waste management unit used to destroy, degrade, or remove organics in the hazardous waste (40 CFR 265.1081).

Pollution Prevention
The use of materials, processes or practices that reduce or eliminate the creation of pollutants or waste at the source. It includes practices that reduce the use of hazardous materials energy, water or other resources, and practices that protect natural resources through conservation or more efficient use.

Primary Exporter
Any person who is required to originate the manifest for a shipment of hazardous waste in accordance with 40 CFR 262, Subpart B or an equivalent state provision, that specifies a treatment, storage, or disposal facility in a receiving country as the facility to which the hazardous waste will be sent and any intermediate arranging for the export (40 CFR 262.51).

Prohibited Wastes
A subset of restricted wastes (under the land disposal restriction (LDR) regulations) that have established treatment standards, are not subject to variances or waiver, and do not meet the respective treatment standard.

Publicly Owned Treatment Works (POTW)
Any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a state or municipality (as defined by section 502(4) of the CWA). This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment (40 CFR 260.10).

Receiving Country
A foreign country to which a hazardous waste is sent for the purpose of treatment, storage, or disposal (except short-term storage incidental to transportation) (40 CFR 262.51).

Representative Sample
A sample of a universe or whole (e.g., waste pile, lagoon, groundwater) which can be expected to exhibit the average properties of the universe or whole (40 CFR 260.10).

Restricted Wastes
The RCRA hazardous wastes that are subject to the LDR program. A waste is restricted if EPA has established a treatment standard for it, or if it has been specifically designated by Congress as ineligible for land disposal.

Runoff
Any rainwater, leachate, or other liquid that drains over land from any part of a facility (40 CFR 260.10).

Run-on
Any rainwater, leachate, or other liquid that drains over land onto any part of a facility (40 CFR 260.10).

Sludge
Any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant (40 CFR 260.10).

Small Quantity Generator
A generator who generates less than 1,000 kg (2,204.62 lb.) of hazardous waste but more than 100 kg (220.46 lb.) in a calendar month (40 CFR 260.10).

Storage
The holding of hazardous wastes for a temporary period, at the end of which the hazardous wastes are treated, disposed of, or stored elsewhere (40 CFR 260.10).

Sump
Any pit or reservoir that meets the definition of tank and those troughs/trenches connected to it that serve to collect hazardous waste for transport to hazardous waste TSDF except that as used in the landfill, surface impoundment, and waste pile rules, sump means any lined pit or reservoir that serves to collect liquids drained from a leachate collection and removal system or leak detection system for subsequent removal from the system (40 CFR 260.10).

Transfer Facility
Any transportation-related facility including loading docks, parking areas, storage areas and other similar areas where shipments of hazardous wastes are kept during the normal course of transportation (40 CFR 260.10). (NOTE: Transfer facilities are regulated under 40 CFR 263.12.)

Transfrontier Movement
Any shipment of hazardous wastes destined for recovery operations from an area under the national jurisdiction of one OECD member country to an area under the national jurisdiction of another OECD country (40 CFR 262.81).

Transit Country
Any foreign country, other than a receiving country, through which a hazardous waste is transported (40 CFR 260.10).

Transport Vehicle
A motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body (trailer, railroad freight car, etc.) is a separate transport vehicle (40 CFR 260.10).

Transporter
A person engaged in the off-site transportation of hazardous wastes by air, rail, highway, or water (40 CFR 260.10).

Treatability Study
A study in which a hazardous waste is subjected to a treatment process to determine:
- Whether the waste is amenable to the treatment process,
- What pretreatment (if any) is required,
- The optimal process conditions needed to achieve the desired treatment,
- The efficiency of a treatment process for a specific waste or wastes, or
- The characteristics and volumes of residuals from a particular treatment process (40 CFR 260.10).

Also included in this definition for the purpose of the 40 CFR 261.4(e) and (f) exemptions are liner compatibility, corrosion, and other material compatibility studies and toxicological and health effects studies. A treatability study is not a means to commercially treat or dispose of hazardous waste.

Unsaturated Zone or Zone of Aeration
The zone between the land surface and the water table (40 CFR 260.10).

United States
The 50 states, the District of Columbia, the Commonwealth of Puerto Rico, the US Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands (40 CFR 260.10).

Uppermost Aquifer
The geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary (40 CFR 260.10).

Volatile Organic (VO) Concentration
The fraction by weight of the volatile organic compounds in a hazardous waste expressed in terms of ppmw as determined by direct measurement or by knowledge of the waste (40 CFR 265.1081)

Waste Stabilization Process
Any physical or chemical process used to either reduce the mobility of hazardous constituents in a hazardous waste or eliminate free liquids (40 CFR 265.1081).

Wastewater Treatment Unit
A device that (1) is part of a wastewater treatment facility subject to regulation under section 402 or 307 of the CWA; and (2) receives and treats or stores an influent wastewater that is a hazardous waste (as defined in 40 CFR 261.3), or that generates and accumulates a wastewater treatment sludge that is a hazardous waste, or treats or stores a wastewater treatment sludge; and (3) meets the definition of tank or tank system (40 CFR 260.10).

Wastewaters
Wastes that contain less than one percent by weight total organic compounds and one percent by weight total suspended solids (40 CFR 268.2).

Zone of Engineering Control
An area under the control of the owner/operator that upon detection of a hazardous waste release, can be readily cleaned up before the release of hazardous waste or hazardous constituents to groundwater or surface water (40 CFR 260.10).

Typical Records to Review

- Notification of Hazardous Waste Activity (EPA ID No.);
- Hazardous waste manifests;
- Manifest exception reports;
- Biennial reports;
- Inspection logs;
- Delistings;
- Speculative accumulation records;
- Land disposal restriction certifications;
- Employee training documentation;
- Hazardous substance spill control and contingency plan;
- Notifications of hazardous waste oil fuel marketing or blending activity;
- Material Safety Data Sheets (MSDSs);
- Inventory records;
- Shipping papers;
- Hazardous Communication Plan;
- Chemical Hygiene Plan (labs); and
- Spill records.

Typical Physical Features to Inspect

- Hazardous waste generations sites (e.g., production and manufacturing areas);
- Waste storage areas;
- Satellite accumulation points;
- Vehicles used for transport;
- Container storage areas;
- Generation points;
- Shipping and receiving areas; and
- Shop activities.

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Checklist

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
All Facilities	
HW.1. The current status of any ongoing or unresolved Consent Orders, Compliance Agreements, Notices of Violation (NOV), or equivalent state enforcement actions pertaining to RCRA or corresponding State regulations should be examined.	Determine if noncompliance issues have been resolved by reviewing a copy of the previous report, Consent Orders, Compliance Agreements, NOVs, Interagency agreements or equivalent state enforcement actions. For those open items, indicate what corrective action is planned and milestones established to correct problems.
HW.2. Facilities are required to comply with state and local regulations concerning hazardous waste management.	Check state authorization status. In authorized states, compare state regulations to federal requirements outlined in this document and annotate this checklist accordingly. Verify that the facility is abiding by state and local hazardous waste requirements. Verify that the facility is operating according to hazardous waste permits issued by the state or local agencies where approved. (NOTE: Issues typically regulated by state and local agencies include: - Additional manifesting requirements - More frequent reporting requirements - Transportation - Identification of special waste or waste categories - Regulation of specific substances as hazardous waste such as: medical, pathological, and infectious waste; used oil; explosives; used batteries - Small and conditionally exempt small quantity generator requirements - RCRA permitting of oil/water separators - Disposal requirements - Construction and operation of storage and disposal facilities - Satellite accumulation point requirements - Container marking and labeling requirements.) Verify that the actions detailed in compliance agreements are being taken according to the schedule established in the agreements.
HW.3. Facilities are required to comply with all applicable federal regulatory requirements not identified in this checklist.	Determine if any new hazardous waste regulations have been issued since the finalization of the guide. If so, annotate checklist to include new standards. Determine if the facility has hazardous waste activities or facilities that are federally regulated, but not addressed in this checklist. Verify that the facility is in compliance with all applicable and newly issued hazardous waste regulations.
HW.4. *Specific persons should be designated responsible for hazardous waste storage areas, and the precise nature of their responsibilities should be specified (MP).*	*Verify that specific individuals have been designated responsible for hazardous waste storage areas.* *Verify that the individuals designated responsible for hazardous waste storage areas are aware of the precise nature of their responsibilities.* *Verify that required training for hazardous waste handling is in personnel file.*

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
All Sizes of Generators	
HW.5. Facilities that generate solid wastes must determine if the wastes are hazardous wastes (40 CFR 261.3, 261.4(b), 261.24, and 262.11).	Determination of whether or not a waste is a hazardous waste can be done through one of the following: - Knowledge of all the constituents of the waste (MSDSs) and whether it is listed in 40 CFR 261 - Laboratory analysis - Knowledge of materials and processes used - A sample which is collected for the sole purpose of testing to determine characteristics or composition. (SW.846)) (NOTE: Unidentified waste materials and spilled hazardous materials may have to be disposed of as hazardous waste depending on their constituents or characteristics.) Discuss with staff how wastes generated on the facility were identified and classified. Determine if the facility followed EPA criteria for identifying the characteristics of hazardous waste and EPA's listed wastes in 40 CFR 261 (see Appendices A, B, C, and D. **Note: The appendices contained in this document are dated. Auditors should consult a current version of the regulations to ensure that accurate lists and other requirements are used for assessments.**). Determine whether the facility generates, transports, treats, stores, or disposes of any hazardous waste (see Appendices A, B, C, and D for guidance) and the quantity. Waste documentation must be in facility records (40 CFR 262.40). (NOTE: The following are examples of solid wastes which are not considered hazardous wastes (40 CFR 261.3 and 261.4(b)): - Household waste - Fly ash waste, bottom ash waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels except for facilities that burn hazardous waste - Drilling fluids, produced waters and other wastes affiliated with the explorations, development, or production of crude oil, natural gas, or geothermal energy. - Solid waste which consists of discarded arsenic-treated wood or wood products which fail the test for Toxicity Characteristics for hazardous waste codes 0004 through 0017 and which is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenic treated wood and wood products for those materials intended end use - Petroleum contaminated media and debris that fail the test for Toxicity Characteristic of 40 CFR 261.24 (Hazardous Waste Codes D018 through D043 only) and are required to meet the corrective action regulations under 40 CFR part 280 - Used chlorofluorocarbon refrigerants from totally enclosed heat transfer equipment, including mobile air conditioning systems, mobile refrigeration and commercial and industrial air conditioning and refrigeration systems that use chlorofluorocarbons as the heat transfer fluid in a refrigeration cycle, provided that the refrigerant is reclaimed for further use - Non-tern plated used oil filters that are not mixed with a listed hazardous waste if these oil filters have been gravity hot-drained using one of the following methods: -- puncturing the filter anti-drain back valve or the filter dome end and hot-draining -- hot-draining and crushing -- dismantling and hot-draining -- any other equivalent hot-draining method that will remove used oil.)

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.5. (continued)	Verify that wastes are tested for toxicity characteristics or are previously identified as toxic. Verify that all data used for determination, including quality assurance data, is maintained and kept available for reference or inspection.
HW.6. Facilities which claim that a particular material is not a solid waste or is conditionally exempt from regulation as a hazardous waste should be prepared to provide specific documentation in the event of an enforcement action (40 CFR 261.2(f)).	Determine if the facility has any wastes that are typically handled as hazardous wastes that it claims are exempt. Verify that for these wastes, the facility can demonstrate that there is a known market or distribution for the material (if relevant) and that they meet the terms of the exclusion or exemption. Verify that documentation is provided that indicates the material is not a waste or is exempt from regulation. (NOTE: One example of documentation is contracts showing that a second person uses the material as an ingredient in a production process.) Verify that if the facility is claiming to recycle material, the equipment for the recycling is actually at the facility and in working order.
HW.7. *Areas where containers of hazardous waste are stored should have secondary containment (MP).*	*Verify that the areas where containers of hazardous waste are stored have secondary containment.*
HW.8. Generators must not offer their waste to transporters or TSDFs that have not received an EPA identification number (40 CFR 262.12(c)).	Verify that all transporters of hazardous wastes and TSDFs used by the generator have an EPA identification number by examining facility records pertaining to these services. Examples of such records could include sales agreements or vendor contracts. Auditors could also contact the state regulatory agency or local EPA regional office to confirm that these vendors have the appropriate EPA identification number.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
Conditionally Exempt Small Quantity Generators (CESQG)	
HW.9. Generators of no more than 100 kg/mo (220.46 lb/mo) of hazardous waste or 1 kg of acutely hazardous waste may qualify as CESQGs when they meet specific requirements (40 CFR 261.5).	Verify that the following quantity and storage limitations are met: - No more than 100 kg (220.46 lb.) of hazardous waste is generated in a calendar month - Total on-site accumulation does not exceed 1,000 kg (2,204.62 lb.) of hazardous waste - No more than 1 kg (2.2 lb.) of acute hazardous waste (see Appendix E) is generated in a calendar month - No more than a total of 100 kg (220.46 lb.) of any residue or contaminated soil, waste, or other debris resulting from the cleanup of any acute wastes in a calendar month is generated. Verify that wastes are either treated or disposed of in an on-site facility or delivered to an off-site TSDF, which is one of the following: - Permitted under 40 CFR 270 - Operating under interim status - Authorized to manage hazardous waste by a state with an approved hazardous waste management program under 40 CFR 271 - Permitted, licensed, or registered by a state to manage solid waste - A facility which does one of the following: -- beneficially uses or reuses, or legitimately recycles or reclaims its waste -- treats it waste prior to beneficial use or reuse, or legitimate recycling or reclamation. (NOTE: If a hazardous waste generator meets the requirements for being a CESQG, it is not required to meet any of the standards outlined in 40 CFR Parts 262 through 266, (except 262.11), 268, and 270.) (NOTE: If a facility mixes its waste with used oil, the mixture is subject to the requirements in Subpart G of 40 CFR Part 279 if it is destined to be burned for energy recovery.) (NOTE: Quantities of hazardous and acutely hazardous waste greater than the threshold quantities listed above become subject to the standards for LQGs.) (NOTE: Even though a CESQG is not legally required to use a manifest or obtain a hazardous waste identification number, many hazardous waste haulers will not transport hazardous waste from a facility without a manifest or ID number.)

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.10. *Environmental management at the facility may be enhanced if CESQG personnel who handle hazardous waste receive training in certain key areas of waste management (MP).*	*Ensure that the facility personnel complete classroom instruction or on-the-job training as set forth below:* *Verify that the training program is directed by a person trained in hazardous waste management procedures and that the program includes instruction which teaches facility personnel hazardous waste management procedures relevant to positions in which they are employed.* *Although not specified by the regulations, examples of training topics for hazardous waste management procedures could include (but would not be limited to) the following:* - *Waste turn in procedures* - *Identification of hazardous wastes* - *Container use, marking, labeling and on-site transportation* - *Manifesting and off-site transportation* - *90 day storage area management* - *Personal health and safety and fire safety.* *Verify that the training program includes contingency plan implementation and is designed to ensure that facility personnel are able to respond to emergencies including (where applicable):* - *Key parameters for automatic waste feed cut-off systems* - *Procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment* - *Operation of communications and alarm systems* - *Response to fire or explosion* - *Response to groundwater contamination incidents* - *Response to leaks or spills* - *Shutdown of operations.* *Verify that new employee training is completed within six months of employment/ assignment.* *Verify that an annual review of initial training is provided.* *Verify that employees do not work unsupervised until training is completed.* *Verify specifically that waste storage area managers and hazardous waste handlers have been trained.*
HW.11. *Training records should be maintained for all CESQG staff who manage hazardous waste (MP).*	*Examine training records and verify they include the following:* - *Job title and description for each employee by name* - *Written description of how much training each position will obtain* - *Documentation of training received by name.* *Determine if training records are retained for three years after employment at the facility.*

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.12. Empty containers at CESQGs previously holding hazardous wastes must meet the regulatory definition of empty before they are exempted from hazardous waste requirements (40 CFR 261.7).	Verify that for containers or inner liners holding hazardous wastes: - Wastes are removed that can be removed using practices commonly employed to remove materials from that type of container (e.g., pouring, pumping, and aspirating) and, - No more than 2.5 cm (1 in.) of residue remains, or - If the container is less than or equal to 110 gal. (416.40 L), no more than 3 percent by weight of total container capacity remains, or - When the container is greater than 110 gal. (416.40 L), no more than 0.3 percent by weight of the total container capacity remains. Verify that for containers that hold a compressed gas, the pressure in the container approaches atmosphere. Verify that for a container or inner liner that held an acute hazardous waste listed in Appendix E, one of the following is done: - It is triple rinsed - It is cleaned by another method identified through the literature or testing as achieving equivalent removal - The inner liner is removed.
HW.13. *Containers at CESQGs should be managed in accordance with specific management practices (MP).*	*Verify the following by inspecting storage areas:* - *Containers are not stored more than two high and have pallets between them* - *Containers of highly flammable wastes are electrically grounded (check for clips and wires and make sure wires lead to ground rod or system)* - *At least 3 ft. (0.91 m) of aisle space is provided between rows of containers.*
HW.14. *Containers of hazardous waste should be kept in designated storage areas at CESQGs (MP).*	*Verify that all hazardous waste containers are identified and stored in appropriate areas.* *(NOTE: Any unidentified contents of solid waste containers and/or containers not in designated storage areas must be tested to determine if solid or hazardous waste requirements apply.)*
Small Quantity Generators (SQGs)	
General	
HW.15. SQGs that generate, transport, or handle hazardous wastes must obtain an EPA identification number (40 CFR 262.12(a) and 262.12(b); 40 CFR 265.11).	Examine documentation from EPA for the facility's generator identification number. Verify that correct identification number is used on all appropriate documentation (i.e., manifests).

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.16. Generators of more than 100 kg (220.46 lb.) but less than 1,000 kg (2,204.62 lb.) of hazardous waste per month may qualify as an SQG which can accumulate hazardous waste on-site for 180 days (or 270 days) without a permit if specific conditions are met (40 CFR 262.34(d)(1), 262.34(d)(4), 262.34(e) and 262.34(f)).	Inspect containers, storage, and records. Verify that no more than 1,000 kg (2,204.62 lb.) of hazardous waste is generated in any calendar month. Verify that the on-site accumulation time does not exceed 180 days. (NOTE: For an SQG the accumulation start date begins when the first waste is poured/placed into the waste container, except at satellite accumulation points.) (NOTE: The 180 day time period is extended to 270 days if the waste must be transported more than 200 miles to a TSDF. This extension does not apply if a TSDF is available within 200 miles and the facility chooses to transport the waste to a more distant TSDF.) Verify that no more than 6,000 kg (13,227.73 lb.) is allowed to accumulate at the facility. Verify that containers are marked with the date that accumulation began and the words HAZARDOUS WASTE. Verify that the containers and the areas where containers are stored meet the requirements outlined in the subsections pertaining to SQG. (NOTE: Quantities of hazardous and acutely hazardous waste greater than the threshold quantities listed above become subject to the standards for LQGs.)
HW.17. An SQG must not offer its hazardous waste to transporters or to TSDFs that have not received an EPA identification number (40 CFR 262.12(c)).	Verify that all transporters of hazardous waste and TSDFs utilized by the facility have an EPA identification number by examining facility records pertaining to these services. Examples of such records could include vendor contracts or sales agreements. Auditors could also contact the state regulatory agency or the local EPA regional office to confirm that these vendors have the appropriate EPA identification number.
HW.18. SQGs of hazardous waste are required to use manifests and keep records of hazardous waste activity (40 CFR 262.20, 262.42(b) and 262.44).	Verify that signed copies of returned manifests are kept for three years from the date the waste was accepted by the initial transporter. Verify that exception reports were submitted to the regulatory agency when a signed manifest copy was not received within 60 days of the waste being accepted by the initial transporter. Verify that exception reports are kept for at least three years. (NOTE: The requirement to prepare a manifest does not apply if: - The waste is reclaimed under contractual agreement and: -- the type of waste and frequency of shipments are specified in the agreement; -- the vehicle used to transport the waste to the recycling facility and to deliver regenerated material back to the generator is owned and operated by the reclaimer; and -- the generator maintains a copy of the reclamation agreement for at least three years after termination of the agreement.) (NOTE: Period of retention of records is extended automatically during the course of any unresolved enforcement action or as requested by the regulatory agency.)

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.19. SQGs are required to keep records of waste analyses, tests, and waste determinations (40 CFR 262.40(c)).	Verify that appropriate records are kept for at least three years from the date the waste was last sent to an on-site or off-site TSDF. (NOTE: Period of retention of records is extended automatically during the course of any unresolved enforcement action or as requested by the regulatory agency.)
HW.20. SQGs are required to have an emergency coordinator and emergency response planning (40 CFR 262.34(d)(5)).	Verify that the facility has at least one emergency coordinator who is either on the premises or on call. Verify that the following emergency information is posted next to the telephone: - Name and telephone number of emergency coordinator - Location of fire extinguishers and spill control materials - Location of fire alarms (if present) - Telephone number of fire department.
Personnel Training	
HW.21. SQG personnel are required to be thoroughly familiar with proper waste handling and emergency procedures (40 CFR 262.34(d)(5)(iii)).	Verify that personnel are thoroughly familiar with waste handling and emergency procedures relevant to their responsibilities during normal facility operation and emergencies.
HW.22. *Training records should be maintained for all SQG staff who manage hazardous waste (MP).*	*Examine training records and verify they include the following:* - *Job title and description for each employee by name* - *Written description of how much training each position will obtain* - *Documentation of training received by name.* *Determine if training records are retained for three years after employment at the facility.*
Containers	
HW.23. Empty containers at SQGs previously holding hazardous wastes must meet the regulatory definition of empty before they are exempted from hazardous waste requirements (40 CFR 261.7).	Verify that for containers or inner liners holding hazardous wastes: - Wastes are removed that can be removed using practices commonly employed to remove materials from that type of container (e.g., pouring, pumping, and aspirating), and - No more than 2.5 cm (1 in.) of residue remains, or - If the container is less than or equal to 110 gal. (416.40 L), no more than 3 percent by weight of total container capacity remains, or - When the container is greater than 110 gal. (416.40 L), no more than 0.3 percent by weight of the total container capacity remains. Verify that for containers that held a compressed gas, the pressure in the container approaches atmosphere. Verify that for a container or inner liner that held an acute hazardous waste listed in Appendix E, one of the following is done: - It is triple rinsed - It is cleaned by another method identified through the literature or testing as achieving equivalent removal - The inner liner is removed.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.24. Containers used to store hazardous waste at SQGs must be in good condition and not leaking (40 CFR 262.34 (d)(2) and 40 CFR 265.171).	Verify that containers are not leaking, bulging, rusting, damaged or dented. Verify that waste in leaking containers is transferred to a new container or managed in another appropriate manner when necessary.
HW.25. Containers used at SQGs must be made of or lined with materials compatible with the waste stored in them (40 CFR 262.34(d)(2) and 40 CFR 265.172).	Verify that containers are compatible with waste; for example, check that strong caustics and acids are not stored in metal drums.
HW.26. Containers of hazardous waste at SQGs must be closed during storage and handled in a safe manner (40 CFR 262.34(d)(2) and 40 CFR 265.173).	Verify that containers are closed except when it is necessary to add or remove waste (check bungs on drums, look for funnels). Verify that handling and storage practices do not cause damage to the containers or cause them to leak.
HW.27. The handling of incompatible wastes or incompatible wastes and materials in containers at SQGs must comply with safe management practices (40 CFR 262.34(d)(2) and 40 CFR 265.177).	Verify that incompatible wastes or incompatible wastes and materials are not placed in the same containers unless it is done so that it does not: - Generate extreme heat or pressure, fire, explosion, or violent reaction - Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health - Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions - Damage the structural integrity of the device or facility - Threaten human health by any other like means. (NOTE: Incompatible wastes as listed in Appendix F should not be placed in the same drum.) Verify that hazardous wastes are not placed in an unwashed container that previously held an incompatible waste or material. Verify that containers holding hazardous wastes incompatible with wastes stored nearby in other containers, open tanks, piles, or surface impoundments are separated or protected from each other by a dike, berm, wall or other device.
HW.28. *Containers of hazardous waste at SQGs should be managed in accordance with specific management practices (MP).*	*Determine the following by inspecting containers and storage areas:* - *Containers are not stored more than two high and have pallets between them* - *Containers of highly flammable wastes are electrically grounded (check for clips and wires and make sure wires lead to ground rod or system)* - *At least 3 ft. (0.91 m) of aisle space is provided between rows of containers.*

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
Satellite Accumulation Points	
HW.29. All SQGs may accumulate as much as 55 gal. of hazardous waste or 1 qt. of acutely hazardous waste in containers at or near any point of initial generation without complying with the requirements for on-site storage if specific standards are met (40 CFR 262.34(c)).	(NOTE: This type of storage area is often referred to as a satellite accumulation point.) Verify that the satellite accumulation point is at or near any point of generation where wastes initially accumulate and is under the control of the operator of the waste generating process. Verify that the containers are in good condition and are compatible with the waste stored in them and that the containers are kept closed except when waste is being added or removed. Verify that the containers are marked HAZARDOUS WASTE or other appropriate identification. (NOTE: See Appendices A, B, C, D, and E for a guidance list of hazardous and acute wastes.) Interview the shop managers to identify when waste is accumulated in excess of quantity limitations, the following actions are taken: - The excess container is marked with the date the excess amount began accumulating - The waste is transferred to a storage area within three days where it will be stored for 180 days or less.
Container Storage Areas	
HW.30. *Containers of hazardous waste at SQGs should be kept in storage areas designated in the management plan (MP).*	*Verify that all containers are identified and stored in appropriate areas.* *(NOTE: Any unidentified contents of solid waste containers and/or containers not in designated storage areas must be tested to determine if solid or hazardous waste requirements apply.)*

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.31. SQG storage areas must be designed, constructed, maintained, and operated to minimize the possibility of a fire, explosion, or any unplanned release of hazardous waste or constituents which could threaten human health or the environment (40 CFR 262.34(d)(4) and 40 CFR 265.30 through 265.37).	Determine if the following required equipment is easily accessible and in working condition by inspecting the SQG storage areas (unless none of the hazards posed by the waste managed at the facility would require the particular kind of equipment): - Internal communications or alarm system capable of providing immediate emergency instruction to facility personnel - A telephone or hand-held two way radio capable of contacting local and emergency responders - Portable fire extinguishers and fire control equipment, including special extinguishing equipment (foam, inert gas, or dry chemicals) - Spill control equipment - Decontamination equipment - Fire hydrants or other source of water (reservoir, storage tank, etc.) with adequate volume and pressure, foam producing equipment, or automatic sprinklers, or water spray systems. Determine if equipment is tested and maintained as necessary to insure proper operation in an emergency. Verify that sufficient aisle space is maintained to allow unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of the operation. Review procedures employed by facility management to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of the waste being handled, and general operations as appropriate for the type of waste and potential need for such services. Review procedures employed by facility management to familiarize local hospitals with the site and types of injuries that could result in an emergency as appropriate for the type of waste and potential need for such services. (NOTE: Where state or local authorities decline to enter into arrangements, the facility must document this refusal in the operating record.)
HW.32. SQGs must conduct weekly inspections of container storage areas (40 CFR 262.34(d)(2) and 265.174).	Verify that inspections are conducted at least weekly to look for leaking containers and signs of deterioration of containers.
Disposal of Restricted Wastes	
HW.33. SQGs must test their wastes or use process knowledge to determine if they are restricted from land disposal (40 CFR 268.7(a)(1)).	Determine whether the generator determines if wastes have to be treated prior to disposal. Determine if the facility generates restricted wastes (see Appendix G) by reviewing test results or reviewing procedures employed by facility management where process knowledge was applied in making the waste determinations.
HW.34. When an SQG is managing a restricted waste, a written notice must be issued to the TSDF of the appropriate treatment standards and prohibition levels (40 CFR 268.7(a)(2) through 268.7(a)(4), 268.7(a)(10)).	(NOTE: EPA is changing the notification requirement under 40 CFR 268.7 to a one-time notification and certification if the composition of the wastes, the process generating the wastes, and the treatment facility receiving the waste do not change (see FR Vol. 62, No. 91, May 12, 1997; pg. 26004).)

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.34 (continued)	Verify that, for waste or soil which does not meet the applicable treatment standards or exceeds the applicable prohibition levels, the notice is issued and includes: - The EPA hazardous waste code and manifest numbers - The waste is subject to the LDRs and the constituents of concern for F001-F005 and F039 and underlying hazardous constituents in characteristic wastes, unless the waste will be treated and monitored for all constituents (If all constituents will be treated and monitored, there is no need to put them all on the LDR notice.) - Whether the waste is a nonwastewater or wastewater - The subcategory of the waste determination, if applicable - For hazardous debris, when treating with the alternative treatment technologies provided in 40 CFR 268.45, the contaminants subject to treatment, as described in 268.45(b), and an indication that these contaminants are being treated to comply with 268.45. - For contaminated soil subject to LDRs provided in 40 CFR 268.49(a), the constituents subject to treatment described in 268.49(d), and the following statement: "This contaminated soil [does/does not] exhibit a characteristic of hazardous waste and is [subject to/complies with] the soil treatment provided in 268.49(c) or the universal treatment standards." Verify that, for waste or contaminated soil which meets the treatment standard at the original point of generation, the notice includes: - The EPA hazardous waste code and manifest numbers - The waste is subject to the LDRs and the constituents of concern for F001-F005 and F039 and underlying hazardous constituents in characteristic wastes, unless the waste will be treated and monitored for all constituents (If all constituents will be treated and monitored, there is no need to put them all on the notice.) - Whether the waste is a nonwastewater or wastewater - The subcategory of the waste determination, if applicable - For contaminated soil subject to LDRs provided in 40 CFR 268.49(a), the constituents subject to treatment described in 268.49(d), and the following statement: "This contaminated soil [does/does not] exhibit a characteristic of hazardous waste and is [subject to/complies with] the soil treatment provided in 268.49(c) or the universal treatment standards." - Waste analysis data, when available - The signature of an authorized representative certifying that the waste complies with the treatment standards of 40 CFR 268 (the text of the required certification statement can be found in 40 CFR 268.7(3)(i)). Verify that, for restricted waste which is subject to an exemption from a prohibition of the type of land disposal used, the notice states that the waste is not prohibited from land disposal and includes: - The EPA hazardous waste code and manifest number - Statement that this waste is not prohibited from land disposal - Waste analysis data, when available - The date the waste is subject to the prohibition - For hazardous debris, when treating with the alternative treatment technologies provided in 40 CFR 268.45, the contaminants subject to treatment, as described in 268.45(b), and an indication that these contaminants are being treated to comply with 268.45. (NOTE: SQGs with tolling agreements are required to comply with notification and certification requirements for the initial shipment of waste subject to the agreement. The SQG will retain an on-site copy of the notification and certification along with the tolling agreement for at least 3 years after the termination or expiration of the agreement.)

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.35. SQGs that are managing prohibited wastes in tanks, containers, or containment buildings and treating the waste to meet applicable treatment standards, must develop and follow a written waste analysis plan (40 CFR 268.7(a)(5) and 268.7(a)(10)).	Verify that the plan describes the procedures that the generator will follow in order to comply with treatment standards. (NOTE: SQGs treating hazardous debris under the alternative treatment standards are not required to conduct waste analysis.) Verify that the plan is kept on-site and: - The plan is based on a detailed chemical and physical analysis of representative sample of the prohibited waste being treated - The plan contains all information necessary to treat the wastes in accordance with regulatory requirements including the selected testing frequency - The plan must be kept in the facility's on-site files and made available to regulatory inspectors. (NOTE: SQGs with tolling agreements are required to comply with notification and certification requirements for the initial shipment of waste subject to the agreement. The SQG will retain an on-site copy of the notification and certification along with the tolling agreement for at least 3 years after the termination or expiration of the agreement.)
HW.36. SQGs are required to keep specific documents pertaining to restricted wastes on-site (40 CFR 268.7(a)(4) through 268.7(a)(7) and 268.7(a)(10)).	Verify that if the facility is using generator knowledge to determine whether a waste or contaminated soil meets land disposal restriction requirements, the supporting data used in making this determination is retained on-site in the facility operating files. Verify that if the facility has determined whether a waste is restricted using appropriate test methods, the waste analysis data is retained on-site in the files. Verify that if the facility has determined that it is managing a restricted waste that is excluded from the definition of a hazardous waste or solid waste or exempt from RCRA Subtitle C, a one-time notice is placed in the facility's files stating that the generated waste is excluded. Verify that a copy of all notices, certifications, waste analysis data and other documentation is kept for at least three years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal. Verify that SQGs with tolling agreement retain the agreement and copies of notification and certification for at least three years after the agreement expires.
HW.37. The storage of hazardous waste that is restricted from land disposal is not allowed unless specific conditions are met (40 CFR 268.50).	Verify that land disposal restricted waste is not stored at the facility unless the SQG is storing the wastes in tanks, containers, or containment buildings on-site only for the purpose of accumulating enough quantity of hazardous waste to facilitate proper recovery, treatment, or disposal and all appropriate standards for containers, tanks, and containment buildings are met. (NOTE: The prohibition on storage does not apply to hazardous wastes that have met treatment standards.) Verify that liquid hazardous wastes containing PCBs at concentrations greater than 50 ppm are stored at a site that meets the requirements of 40 CFR 761.65(b) (see Toxic Substances Control Act (TSCA)) and is removed from storage within one year of the date it was first placed into storage.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
Large Quantity Generators (LQGs)	
General	
HW.38. A generator that generates, transports, or handles hazardous wastes must obtain an EPA identification number (40 CFR 262.12(a) and 262.12(b)).	Examine documentation from EPA for the facility's generator identification number. Verify that the correct identification number is used on all appropriate documentation (i.e., manifests).
HW.39. Generators may accumulate hazardous waste on-site for 90 days or less without a permit or interim status provided they meet certain conditions (40 CFR 262.34(a)(2), 262.34(a)(3) and 262.34(b)).	Inspect each 90 day storage area and interview the storage area manager. Verify that: - The date upon which accumulation begins is clearly marked and visible for inspection - The recorded start date indicates no container or tank has been accumulating a hazardous waste longer than 90 days (unless granted a 30 day extension) - Each container and tank is labeled or marked clearly with the words HAZARDOUS WASTE. (NOTE: For a generator the accumulation start date begins when the first waste is poured/placed into the waste container, except at satellite accumulation points.) (NOTE: A generator who meets these standards is exempt from meeting the closure requirements outlined in 40 CFR 265.110 through 265.156, except for 265.111 and 265.114.) (NOTE: A generator who accumulates hazardous waste for more than 90 days (without an extension), is subject to all TSDF and permitting requirements.)
HW.40. Generators must not offer their waste to transporters or TSDFs that have not received an EPA identification number (40 CFR 262.12(c)).	Verify that all transporters of hazardous wastes and TSDFs used by the generator have an EPA identification number by examining facility records pertaining to these services. Examples of such records could include sales agreements or vendor contracts. Auditors could also contact the state regulatory agency or local EPA regional office to confirm that these vendors have the appropriate EPA identification number.
HW.41. Generators who shipped hazardous waste off-site to a TSDF must submit a biennial report to the regulatory agency by 1 March of even numbered years (40 CFR 262.40(b) and 262.41(a)).	Verify that the biennial report (EPA Form 8700-13A) is complete and was submitted in a timely manner. Verify that copies are kept for three years. (NOTE: Reporting for exports of hazardous waste is covered under the import/export section of this protocol.) (NOTE: Periods of retention of records may be extended automatically during the course of any unresolved enforcement action or at the request of the regulatory agency.)
HW.42. Generators are required to use manifests, file manifest exception reports, and maintain records (40 CFR 262.20, 262.40(a), 262.40(b), 262.40(d), and 262.42(a)).	Verify that manifests are used when shipping the waste off-site. Verify that exception reports were filed with the regulatory agency when a copy of the manifest was not received within 45 days of the waste being accepted by the initial transporter. Verify that manifests and exception reports are kept for three years. (NOTE: Periods of retention for reports may be extended automatically during the course of any unresolved enforcement action.)

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.43. Generators are required to keep records of waste analyses, tests, and waste determinations (40 CFR 262.40(c)).	Verify that the appropriate records are kept for three years from the date the waste was last sent to the on-site or off-site TSDF. (NOTE: Periods of retention for reports may be extended automatically during the course of any unresolved enforcement action or at the request of the regulatory agency.)
HW.44. Generator storage areas must be designed, constructed, maintained, and operated to minimize the possibility of a fire, explosion, or any unplanned release of hazardous waste or constituents which could threaten human health or the environment (40 CFR 262.34(a)(4) and 40 CFR 265.30 through 265.37).	Determine if the following required equipment is easily accessible and in working condition at the storage area (unless none of the hazards posed by the waste managed at the facility would require the particular kind of equipment): - Internal communications or alarm system capable of providing immediate emergency instruction to facility personnel - A telephone or hand-held two way radio capable of summoning emergency assistance - Portable fire extinguishers and fire control equipment, including special extinguishing equipment (foam, inert gas, or dry chemicals) - Spill control equipment - Decontamination equipment - Fire hydrants or other source of water (reservoir, storage tank, etc.) with adequate volume and pressure, foam producing equipment, or automatic sprinklers, or water spray systems. Determine if equipment is tested and maintained as necessary to insure proper operation in an emergency. Verify that sufficient aisle space is maintained to allow unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of the operation. Review procedures employed by facility management to familiarize police, fire departments, emergency response teams with the layout of the facility, properties of the waste being handled, and general operations as appropriate for the type of waste and potential need for such services. Review procedures employed by facility management to familiarize the hospital with the site and the types of injuries that could result in an emergency as appropriate for the type of waste and potential need for such services. (NOTE: Where state or local authorities decline to enter into arrangements, the facility must document this refusal in the operating record.)

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
Personnel Training	
HW.45. All facility personnel who handle hazardous waste must meet certain training requirements (40 CFR 262.34(a)(4); 40 CFR 265.16(a) through 265.16 (c)).	Ensure that the facility personnel complete classroom instruction or on-the-job training as set forth below: Verify that the training program is directed by a person trained in hazardous waste management procedures and that the program includes instruction which teaches facility personnel hazardous waste management procedures relevant to positions in which they are employed. Although not specified by the regulations, examples of training topics for hazardous waste management procedures could include (but would not be limited to) the following: - Waste turn in procedures - Identification of hazardous wastes - Container use, marking, labeling and on-site transportation - Manifesting and off-site transportation - 90 day storage area management - Personal health and safety and fire safety Verify that the training program includes contingency plan implementation and is designed to ensure that facility personnel are able to respond to emergencies including (where applicable): - Key parameters for automatic waste feed cut-off systems - Procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment - Operation of communications and alarm systems - Response to fire or explosion - Response to groundwater contamination incidents - Response to leaks or spills - Shutdown of operations. Verify that new employee training is completed within six months of employment/ assignment. Verify that an annual review of initial training is provided. Verify that employees do not work unsupervised until training is completed. Verify specifically that waste storage area managers and hazardous waste handlers have been trained.
HW.46. Training records must be maintained for all facility staff who manage hazardous waste (40 CFR 262.34(a)(4); 40 CFR 265.16(d) and 265.16(e)).	Verify that training records include the following by examination: - Job title and description for each employee by name - Written description of how much training each position will obtain - Documentation of training received by name. Determine if training records are retained for three years for former employees. Determine if training records on current employees are maintained. (NOTE: Training records on current employees must be maintained until the closure of the facility.)

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
Contingency Plans and Emergency Coordinators	
HW.47. Generators must have a contingency plan (40 CFR 262.34(a)(4) and 40 CFR 265.50 through 265.54).	(NOTE: Generating activities may be addressed in the facility's SPCC plan or other emergency plan, or if none exists, in a separate contingency plan.) Verify that the contingency plan is designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents. Verify that the plan includes the following: - A description of actions to be taken during an emergency - A description of arrangements made with local police departments, fire departments, hospitals, contractors, and state and local emergency response teams as appropriate - Names, addresses, and phone numbers of all persons qualified to act as emergency coordinator (if more than one name is listed, the plan must identify one person as the primary emergency coordinator with other persons listed in the order in which they will assume responsibility as an alternate) - A list of all emergency equipment at the facility and where this equipment is required, located, and what it looks like - An evacuation plan for facility personnel where there is a possibility evacuation would be needed. Verify that copies of the contingency plan and all revisions are maintained at the facility and also have been submitted to organizations which may be called upon to provide emergency services. Verify that the contingency plan is routinely reviewed and updated, especially when: - The applicable regulations are revised - The plan fails in an emergency - The facility changes (e.g., in its design, construction, operation, maintenance) in a way that materially increases the potential for fires, explosions, or oreleases of hazardous constituents or changes the response necessary in an emergency - The list of emergency coordinators changes - The list of emergency equipment changes.
HW.48. Each generator must have an emergency coordinator on the facility premises or on call at all times (40 CFR 262.34(a)(4) and 40 CFR 265.55).	Verify that, at all times, there is at least one employee at the facility or on call with responsibility for coordinating all emergency response measures. Verify that the emergency coordinator is thoroughly familiar with the facility, including all operations and activities at the facility, the location of all records within the facility, the facility layout, the characteristics of the waste handled, and the provisions of the contingency plan. In addition, verify the emergency coordinator has the authority to commit the resources needed to carry out the contingency plan.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.49. Emergency coordinators at generators must follow certain emergency procedures whenever there is an imminent or actual emergency situation (40 CFR 262.34(a)(4) and 40 CFR 265.56(a) through 265.56(i)).	Verify that the emergency coordinator is required to follow these emergency procedures: - Immediately activate facility alarms or communication systems and notify appropriate facility, state, and local response parties - Identify the character, exact source, amount, and a real extent of any released materials - Assess possible hazards to human health or the environment, including direct and indirect effects (e.g., release of gases, surface runoff from water or chemicals used to control fire or explosions, etc.) - Take all reasonable measures necessary to ensure that fires, explosions and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures must include where applicable: -- stop processes and operations at the facility when necessary to prevent fires, explosions, or further releases -- collect and contain the released waste -- remove or isolate containers when necessary - Monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment whenever appropriate - Provide for treatment, storage, or disposal of recovered waste, contaminated soil, or surface water, or other material immediately after emergency - Ensure that no waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup is completed - Ensure that all emergency equipment is cleaned and fit for its intended use before operations are resumed - Notify EPA, and appropriate state and local authorities that the facility is in compliance with 40 CFR 265.56(h) before operation resumes.
HW.50. Generator operators must record the time, date, and details of any incident that requires implementing the contingency plan (40 CFR 262.34(a)(4) and 40 CFR 265.56(j)).	Review facility operating records to determine if incidents have been recorded and corrective actions taken. Verify that written reports have been submitted to the regulatory agency within 15 days after the incident.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
Containers	
HW.51. Empty containers at generators previously holding hazardous wastes must meet the regulatory definition of empty before they are exempted from hazardous waste requirements (40 CFR 261.7).	Verify that for containers or inner liners holding hazardous wastes: - Wastes are removed that can be removed using practices commonly employed to remove materials from that type of container (e.g., pouring, pumping, and aspirating), and - No more than 2.5 cm (1 in.) of residue remains, or - If the container is less than or equal to 110 gal. (416.40 L), no more than 3 percent by weight of total container capacity remains, or - When the container is greater than 110 gal. (416.40 L), no more than 0.3 percent by weight of the total container capacity remains. Verify that for containers that held a compressed gas, the pressure in the container approaches atmosphere. Verify that for a container or inner liner that held an acute hazardous waste listed in Appendix E, one of the following is done: - It is triple rinsed - It is cleaned by another method identified through the literature or testing as achieving equivalent removal - The inner liner is removed. Verify that the rinse water has been tested.
HW.52. Containers used to store hazardous waste at generators must be in good condition and not leaking (40 CFR 262.34(a)(1)(i) and 265.171).	Verify that containers are not leaking, bulging, rusting, damaged or dented. Verify that waste is transferred to a new container or managed in another appropriate manner when necessary.
HW.53. Containers used at generators must be made of or lined with materials compatible with the waste stored in them (40 CFR 262.34(a)(1)(i) and 265.172).	Verify that containers are compatible with waste. For example, check that strong caustics and acids are not stored in metal drums.
HW.54. Containers must be closed during storage and handled in a safe manner at generators (40 CFR 262.34(a)(1)(i) and 265.173).	Verify that containers are closed except when it is necessary to add or remove waste (check bungs on drums, look for funnels). Verify that handling and storage practices do not cause damage to the containers or cause them to leak.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.55. The handling of incompatible wastes, or incompatible wastes and materials in containers at generators must comply with safe management practices (40 CFR 262.34(a)(1)(i) and 265.177).	Verify that incompatible wastes or incompatible wastes and materials are not placed in the same containers unless it is done so that it does not: - Generate extreme heat or pressure, fire, or explosion, or violent reaction - Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health - Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions - Damage the structural integrity of the device or facility - By any other like means threaten human health or the environment (NOTE: Incompatible wastes, as listed in Appendix F, should not be placed in the same drum.) Verify that hazardous wastes are not placed in an unwashed container that previously held an incompatible waste or material. Verify that containers holding hazardous wastes incompatible with wastes stored nearby in other containers, open tanks, piles, or surface impoundments are separated or protected from each other by a dike, berm, wall, or other device.
HW.56. *Containers used to store hazardous waste at generators should be managed in accordance with specific management practices (MP).*	*Verify the following by inspecting container storage areas:* - *Containers are not stored more than 2 high and have pallets between them* - *Containers of highly flammable wastes are electrically grounded (check for clips and wires and make sure wires lead to ground rod or system)* - *At least 3 ft. (0.91 m) of aisle space is provided between rows of containers.*

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.57. Containers with design capacities greater than 0.1 m^3 [~26 gal.] and less than or equal to 0.46 m^3 [~122 gal.] into which hazardous waste is placed are required to meet specific design and operating standards (40 CFR 262.34(a)(1)(i), 265.178, 265.1087(a) through 265.1087(b)(1)(i), and 265.1087(c)).	(NOTE: The requirements of 40 CFR 265.1087 do not apply to containers in which all the hazardous waste entering the container meets one of the following (40 CFR 265.1083(c)): - The average VO concentration of the hazardous waste at the point of waste origination is less than 500 ppmw - The organic content of the hazardous waste entering the waste management unit has been reduced by an organic destruction or removal process - The waste meets the numerical concentration limits for organic hazardous constituents as specified in 40 CFR 268.40 or has been treated by the treatment technology established by the regulatory agency for the waste in 268.42(a) or an equivalent method approved by the regulatory agency pursuant to 268.42(b).) (NOTE: These requirements do not apply to a container that has a design capacity less than or equal to 0.1 m^3 [~26 gal.] (40 CFR 265.1080(b)(2)) or to containers of any size at satellite accumulation points.) (NOTE: Standards for containers used in waste stabilization processes (40 CFR 265,1087(b)(2)) are in checklist item HW.59.) Verify that, for containers with a design capacity greater than 0.1 m^3 [~26 gal.] and less than or equal to 0.46 m^3 [~122 gal.], air emissions are controlled according to the following Container Level 1 standards: - A container that meets applicable U.S. DOT regulations on the packaging of hazardous materials for transportation - A container that is equipped with a cover and closure devices that form a continuous barrier over the container openings so that when the cover and closure devices are secured in the closed position there are not visible holes, gaps or other open spaces into the interior of the container - An open-top container in which an organic vapor suppressing barrier is placed on or over the hazardous waste in the container so that no hazardous waste is exposed to the atmosphere. Verify that when a container using Level 1 standards, other than DOT approved containers, is used, it is equipped with covers and closure devices composed of suitable materials to minimize exposure of the hazardous waste to the atmosphere and to maintain the equipment integrity for as long as it is in service. Verify that, whenever waste is in a container using Level 1 controls, covers and closure devices are installed and closure devices are secured and maintained in the closed position except as follows: - Opening of a closure device or cover is allowed for adding waste or other material to the container as follows: -- when the container is filled to the intended final level in one continuous operation, the closure device is secured in the closed position and the cover is installed at the conclusion of the filling operation -- when discrete batches or quantities of material are added intermittently to the container over a period of time, the closure devices are secured in the closed position and covers installed upon either the container being filled to the intended final level, the completion of a batch loading after which no additional material will be added to the container within 15 minutes, the person performing the loading operation leaving the immediate vicinity of the container, or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.57. (continued)	- Opening of a closure device or cover is allowed for removing the hazardous waste as follows: -- in order to meet the requirements for an empty container -- when discrete quantities or batches of material are removed from the container but the container is not empty, the closure devices will promptly be returned to the closed position and the covers installed upon completion of batch removal after which no additional material will be removed within 15 minutes or the person performing the unloading leaves the immediate vicinity, whichever condition occurs first - Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste - Opening of a spring loaded, pressure vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining internal container pressure - Opening of a safety device to avoid unsafe conditions.
HW.58. Containers with design capacities greater than 0.46 m^3 [~122 gal.] into which hazardous waste is placed are required to meet specific design and operating standards (40 CFR 262.34(a)(1)(i), 265.178, and 265.1087(a) through 265.1087(b)(1)(ii), 265.1087(b)(1) (iii), 265.1087(c), and 265.1087(d)).	(NOTE: The requirements of 40 CFR 265.1087 do not apply to containers in which all the hazardous waste entering the container meets one of the following (40CFR 265.1083(c)): - The average VO concentration of the hazardous waste at the point of waste origination is less than 500 ppmw - The organic content of the hazardous waste entering the waste management unit has been reduced by an organic destruction or removal process - The waste meets the numerical concentration limits for organic hazardous constituents as specified in 40 CFR 268.40 or has been treated by the treatment technology established by the regulatory agency for the waste in 268.42(a) or an equivalent method approved by the regulatory agency pursuant to 268.42(b).) (NOTE: These requirements do not apply to a container that has a design capacity less than or equal to 0.1 m^3 [~26 gal.] (40 CFR 265.1080(b)(2)) or to containers of any size at satellite accumulation points.) (NOTE: Standards for containers used in waste stabilization processes (40 CFR 265.1087(b)(2)) are in checklist item HW.59.) Verify that, for containers with a design capacity greater than 0.46 m^3 [~122 gal.] that are not in light material service, air emissions are controlled according to the following Container Level 1 standards: - A container that meets applicable U.S. DOT regulations on the packaging of hazardous materials for transportation - A container that is equipped with a cover and closure devices that form a continuous barrier over the container openings so that when the cover and closure devices are secured in the closed position there are not visible holes, gaps or other open spaces into the interior of the container - An open-top container in which an organic vapor suppressing barrier is placed on or over the hazardous waste in the container so that no hazardous waste is exposed to the atmosphere.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.58. (continued)	Verify that, for containers with a design capacity greater than 0.46 m^3 [~122 gal.] that are in light material service, air emissions are controlled according to the following Container Level 2 standards: - A container is used that meets applicable U.S. DOT regulations on the packaging of hazardous materials for transportation - A container is used that operates with no detectable organic emissions - A container is used that has been demonstrated within the preceding 12 months to be air tight. (NOTE: Level 2 standards apply only to containers that are in light material service. For the containers that are <u>not</u> in light material service, Level 1 standards apply. (See 40 CFR 265.1087(b)(ii) and (iii).) Verify that when a container using Level 1 standards, other than DOT approved containers, is used it is equipped with covers and closure devices composed of suitable materials to minimize exposure of the hazardous waste to the atmosphere and to maintain the equipment integrity for as long as it is in service. Verify that whenever waste is in a container using Level 1 or Level 2 controls, covers and closure devices are installed and closure devices are secured and maintained in a closed position except as follows: - Opening of a closure device or cover is allowed for adding waste or other material to the container as follows: -- when the container is filled to the intended final level in one continuous operation, the closure devices are secured in the closed position and the covers installed at the conclusion of the filling operation -- when discrete batches or quantities of material are added intermittently to the container over a period of time, the closure devices are promptly secured in the closed position and covers installed upon either: --- the container being filled to the intended final level --- the completion of a batch loading after which no additional material will be added to the container within 15 minutes --- the person performing the loading operation leaving the immediate vicinity of the container --- the shutdown of the process generating the material being added to the container, whichever condition occurs first - Opening of a closure device or cover is allowed for removing the hazardous waste as follows: -- in order to meet the requirements for an empty container -- when discreet quantities or batches of material are removed from the container but the container is not empty, the closure devices are promptly secured in the closed position and the covers installed either: --- upon completion of batch removal after which no additional material will be removed within 15 minutes --- the person performing the unloading leaves the immediate vicinity, whichever condition occurs first - Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste - Opening of a spring loaded, pressure vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere and is allowed during normal operations for the purpose of maintaining internal container pressure - Opening of a safety device to avoid unsafe conditions.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.58. (continued)	Verify that the transfer of hazardous waste in or out of containers meeting Container Level 2 controls is done in a manner to minimize exposure of the hazardous waste to the atmosphere (i.e., a submerged fill pipe, a vapor balancing system, a vapor recovery system, a fitted opening in the top of the container through which the hazardous waste is filled and subsequently purge the transfer line before removing it).
HW.59. Containers with design capacities greater than 0.1 m^3 [~26 gal.] used for the treatment of a hazardous waste by a waste stabilization process are required to meet specific design and operating standards (40 CFR 262.34(a)(1)(i), 265.178, 265.1087(a) through 265.1087(b)(2), and 265.1087(e)(1) through 265.1087(e)(3)).	(NOTE: The requirements of 40 CFR 265.1087 do not apply to containers in which all the hazardous waste entering the container meets one of the following (40 CFR 265.1083(c)): - The average VO concentration of the hazardous waste at the point of waste origination is less than 500 ppmv - The organic content of the hazardous waste entering the waste management unit has been reduced by an organic destruction or removal process - The waste meets the numerical concentration limits for organic hazardous constituents as specified in 40 CFR 268.40 or has been treated by the treatment technology established by the regulatory agency for the waste in 268.42(a) or an equivalent method approved by the regulatory agency pursuant to 268.42(b).) (NOTE: These requirements do not apply to a container that has a design capacity less than or equal to 0.1 m^3 [~26 gal.] (40 CFR 265.1080(b)(2)) or to containers of any size at satellite accumulation points.) (NOTE: Safety devices may be installed and operated as necessary.) Verify that containers with design capacities greater than 0.1 m^3 [~26 gal.] used for the treatment of a hazardous waste by a stabilization process meet the following Container Level 3 standards at those times during the waste stabilization process when the hazardous waste in the container is exposed to the atmosphere: - A container is vented directly through a closed-vent system to a control device - A container is vented inside an enclosure which is exhausted through a closed-vent system to a control device - The container closure is designed and operated in accordance with the criteria for a permanent total enclosure under 40 CFR 52.741 - The closed-vent system and control device is designed and operated in accordance with 265.1088 (see checklist item HW.62).

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.60. Facilities are required to have a written plan and schedule for inspection and monitoring requirements for containers and meet specific inspection requirements (40 CFR 262.34(a)(1)(i), 265.178, 265.1087(c)(4), 265.1087(d)(4), and 265.1089).	(NOTE: These requirements do not apply to a container that has a design capacity less than or equal to 0.1 m^3 [~26 gal.] (40 CFR 265.1080(b)(2)) or to containers of any size at satellite accumulation points.) Verify that the facility has a written plan and schedule for performing inspections and monitoring. Verify that the plan and schedule are being met. Verify that inspections of the containers and their covers and closure devices for containers using Container Level 1 or Level 2 controls are done as follows: - When a hazardous waste is already in the container when it is first accepted and the container is not emptied within 24 hours after it is accepted, it is visually inspected within 24 hours after acceptance for cracks, holes, gaps, or other open spaces - When a container is used for managing hazardous waste for 1 year or more, it is visually inspected at least once every 12 months for visible cracks, holes, gaps, or other open spaces when the cover and closure devices are secured in the closed position. Verify that when a defect is detected, the first efforts at repairs are within 24 hours after detection, and repair is completed as soon as possible but no later than 5 calendar days after detection. (NOTE: If repair cannot be completed within 5 calendar days, the hazardous waste must be removed from the container.)

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.61. Facilities are required to meet documentation requirements for containers (40 CFR 262.34(a)(1)(i), 265.178, 265.1087(c)(5), 265.1090(a), and 265.1090(d) through 265.1090(i).	(NOTE: These requirements do not apply to a container that has a design capacity less than or equal to 0.1 m^3 [~26 gal.] (40 CFR 265.1080(b)(2)) or to containers of any size at satellite accumulation points.) Verify that a copy is available of the procedure used to determine that containers with a capacity of 0.46 m^3 [~122 gal.] or greater which do not meet DOT standards are not managing hazardous waste in light material service. Verify that if using Container Level 3 air emissions controls, the facility prepares and maintains records that: - Include the most recent set of calculations and measurements performed by the owner/operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in 40 CFR 52.741, Appendix B - The same records as required for closed-vent systems. Verify that if using a closed-vent system and control device, the following records are maintained: - Certification that is signed and dated by the owner/operator stating that the control device is designed to operate at the performance level documented by a design analysis or by performance tests when the container is operating at capacity or the highest level reasonably expected to occur - Design documents if design analysis is used, including certification that the equipment meets the applicable specification - A performance test plan if performance tests are used and all test results - Description and date of each modification, as applicable - Identification of operating parameters, description of monitoring devices, and diagrams of monitoring sensor locations, as applicable - Semiannual records of the following for those planned routine maintenance operations that would require the control device to exceed limitations: -- a description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6-month period, including the type of maintenance needed, planned frequency, and lengths of maintenance periods. -- a description of the planned routine maintenance that was performed for the control device during the previous 6-month period, including the type of maintenance performed and the total number of hours during those 6-months that the control device did not meet applicable requirements - Records of the following for those unexpected control device system malfunctions that would cause the control device to not meet specifications: -- the occurrence and duration of each malfunction of the control device system -- the duration of each period during a malfunction when gases, vapors, or fumes are vented from the waste management unit through the closed-vent system to the control device while the control device is not properly functioning -- actions taken during periods of malfunction to restore a malfunctioning control device to its normal or usual manner of operation -- records of the management of the carbon removed from a carbon adsorption system. Verify that, for exempted containers, the following records are prepared and maintained as applicable: - If exempted under the hazardous waste concentration conditions, information used for the waste determination in the facility operating log and/or the date, time, and location of each waste sample if analysis results for samples are used - If exempted under incinerator use or process destruction use, the identification number for the incinerator, boiler, or industrial furnace in which the hazardous waste is treated.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.61. (continued)	Verify that covers designated as unsafe to monitor are listed in a log kept in the facility operating record with an explanation of why they are unsafe to inspect and monitor and a plan and schedule of inspection and monitoring is recorded. Verify that, for containers not using the air emissions controls specified in 40 CFR 265.1085 through 265.1088 (see checklist items HW.57 through HW.62), the following information is maintained: - A list of the individual organic peroxide compounds manufactured at the facility if it produces more than one functional family of organic peroxides or multiple organic peroxides within one functional family, and one or more of these organic peroxides could potentially undergo self-accelerating thermal decomposition at or below ambient temperatures - A description of how the hazardous waste containing the organic peroxide compounds identified in the above list are managed, including: -- a facility identification number for the container or group of containers -- the purpose and placement of this container or group of containers in the management train of this hazardous waste -- the procedures used to ultimately dispose of the hazardous waste handled in the containers - Explanations why managing these containers would be an undue safety hazard. Verify that all records, except design information records, are kept for at least 3 years. Verify that design information records are maintained in the operating record until the air emissions control equipment is replaced or otherwise no longer in service. (NOTE: See also the recordkeeping requirements for carbon adsorption units in checklist item HW.65.)

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.62. Facilities are required to meet specific requirements for closed-vent systems and control devices used to achieve compliance (40 CFR 262.34(a)(1)(i), 265.178, and 265.1088).	(NOTE: The requirements of 40 CFR 265.1088 do not apply to containers in which all the hazardous waste entering the container meets one of the following (40 CFR 265.1083(c)): - The average VO concentration of the hazardous waste at the point of waste origination is less than 500 ppmw - The organic content of the hazardous waste entering the waste management unit has been reduced by an organic destruction or removal process - The waste meets the numerical concentration limits for organic hazardous constituents as specified in 40 CFR 268.40 or has been treated by the treatment technology established by the regulatory agency for the waste in 268.42(a) or an equivalent method approved by the regulatory agency pursuant to 268.42(b).) (NOTE: These requirements do not apply to a container that has a design capacity less than or equal to 0.1 m^3 [~26 gal.] (40 CFR 265.1080(b)(2)) or to containers of any size at satellite accumulation points.) Verify that closed-vent systems meet the following: - It routes the gases, vapors and fumes emitted from the hazardous waste in the waste management unit to a control device - It is designed and operated in accordance with 40 CFR 265.1033(j) (see checklist item HW.64) - If it includes bypass devices that could be used to divert the gas or vapor stream to the atmosphere before entering the control device, one of the following equipment requirements is met for each type of bypass device (NOTE: low leg drains, high point bleeds, analyzer vents, open-ended valve or lines, spring loaded pressure relief valves, and other fittings used for safety purposes are not considered bypass devices): -- a flow indicator is installed, calibrated, maintained, and operated at the inlet to the bypass line used to divert gases and vapors from the closed-vent system to the atmosphere at a point upstream of the control device inlet -- a seal or locking device is placed on the mechanism by which the bypass device position is controlled when the bypass valve is in the closed position so that the bypass device cannot be opened without breaking the seal or removing the lock. Verify that the seal or closure mechanism is visually inspected at least once every month. Verify that one of the following control devices are used: - A device designed and operated to reduce the total organic content of the inlet vapor stream vented to the control device by at least 95 percent by weight - An enclosed combustion device designed and operated in accordance with 265.1033(c) (see checklist item HW.64) - A flare designed and operated in accordance with 40 CFR 265.1033(d) (see checklist item HW.64). Verify that, when a closed-vent system and control device is used, the following are met: - Periods of planned routine maintenance of the control device during which the device does not meet specifications do not exceed 240 hours per year - Control device system malfunctions are corrected as soon as practicable - It is operated such that gases, vapors, and/or fumes are not actively vented to the control device during periods of planned maintenance or control device system malfunction, except in cases where it is necessary to do so in order to avoid an unsafe condition or to implement malfunction corrective actions or planned maintenance actions.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.62. (continued)	Verify that, if a carbon absorption system is used, the following requirements are met: - All activated carbon is replaced with fresh carbon on a regular basis as outlined in 40 CFR 265.1033(g) and 265.1033(h) (see checklist item HW.64) - All carbon removed from the devices is managed in a correct manner. Verify that, if a control device other than a thermal vapor incinerator, flare, boiler, process heater, condenser, or carbon absorption system is used, the requirements in 40 CFR 265.1033(i) are met (see checklist item HW.64). Verify that, for control devices, it is demonstrated by either a performance test or a design analysis that the device achieves compliance except for the following: - A flare - Boiler or process heater with a design heat input capacity of 44 MW or greater - A boiler or process heater into which the vent stream is introduced with the primary fuel - A boiler or process heater burning hazardous waste for which the owner or operator has been issued a final permit under 40 CFR 270 and has designed and operates the unit in accordance with the requirements of 40 CFR 266, subpart H - A boiler or industrial furnace burning hazardous waste for the owner or operator has certified compliance with the interim status requirements of 40 CFR 266, subpart H. Verify that the readings from each control device are inspected at least once each operating day to check control device operation.
Emissions from Process Vents	
HW.63. Generators with process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations, that manage hazardous wastes with organic concentrations of at least 10 ppmw, are required to meet specific standards (40 CFR 262.34(a)(1)(i), 265.178, 265.1030(b), 265.1030(e) and 265.1032).	(NOTE: This applies only if the operations are conducted in one of the following: - A unit that is subject to the permitting requirements of 40 CFR 270 - A unit (including a hazardous waste recycling unit) that is not exempt from permitting under the provisions of 40 CFR 262.34(a) (i.e., a hazardous waste recycling unit that is not a 90-day tank or container) and that is located at a hazardous waste management facility that is otherwise subject to the permitting requirements of 40 CFR 270 - A unit that is exempt from permitting under the provisions of 40 CFR 262.34(a) (i.e., a 90-day tank or container).) Verify that one of the following is met: - Total organic emissions from the process vents do not exceed 1.4 kg/h (3 lb/h) and 2.8 Mg/yr (3.1 tons/yr) - Total organic emissions are reduced by use of a control device from all process vents by 95 weight percent. (NOTE: A process vent is not subject to these standards if the facility owner/operator certifies that all the regulated process vents at the facility are equipped with and operating air emission controls in accordance with the requirements of the Clean Air Act (CAA) 40 CFR Parts 60, 61, and 63.)

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.64. When a generator uses a closed-vent system and control device to meet the standards for total organic emissions, the closed-vent system and control device must meet certain minimum requirements (40 CFR 262.34(a)(1)(i), 265.178, 265.1033(b) through 265.1033(k)).	(NOTE: This applies to generators with process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations, that manage hazardous wastes with organic concentrations of at least 10 ppmw, if the operations are conducted in one of the following: - A unit that is subject to the permitting requirements of 40 CFR 270 - A unit (including a hazardous waste recycling unit) that is not exempt from permitting under the provisions of 40 CFR 262.34(a) (i.e., a hazardous waste recycling unit that is not a 90-day tank or container) and that is located at a hazardous waste management facility that is otherwise subject to the permitting requirements of 40 CFR 270 - A unit that is exempt from permitting under the provisions of 40 CFR 262.34(a) (i.e., a 90-day tank or container).) Verify that control devices involving vapor recovery are designed and operated to recover organic vapors vented to the air with an efficiency of 95 weight percent or greater, unless the total organic emission limit can be attained at an efficiency of less than 95 weight percent. Verify that, if an enclosed combustion device is used (i.e., vapor incinerator, boiler, or process heater), it is designed and operated to reduce the organic emissions vented to it by 95 weight percent or greater, to achieve a total organic compound concentration of 20 ppmv expressed as the sum of the actual compounds, not carbon equivalents, on a dry basis corrected to 3 percent oxygen, or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 degrees Celsius [1400 degrees Fahrenheit]. Verify that, if a boiler or process heater is used as the control device, the vent stream is introduced into the flame zone of the boiler or process heater. Verify that, if flares are used: - They are designed and operated with no visible emissions except for periods not in excess of 5 minutes during any 2 consecutive hours - They are operated with a flame present at all times - They are used only if the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam assisted or air assisted - If nonassisted, the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater - If nonassisted or steam assisted, have an exit velocity less than 18.3 m/s (60 ft/s) except when the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1000 Btu/scf) and the exit velocity is equal to or greater than 18.3 m/s (60 ft/s) but less than 122 m/s (400 ft/s). Verify that each monitor and control device is inspected on a routine basis.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.64. (continued)	Verify that each required control device is installed, calibrated, monitored and inspected as follows: - A flow indicator is installed in the vent stream at the nearest feasible point to the control device inlet, but before being combined with other streams, and provides a record of vent stream flow from each affected process vent to the control device at least once every hour - A control device to continuously monitor control device operations as specified: -- a temperature monitoring device equipped with a continuous recorder for a thermal vapor incinerator -- a temperature monitoring device equipped with a continuous recorder for a catalytic vapor incinerator -- a heat sensing monitor with a continuous recorder for flares -- a temperature monitoring device equipped with a continuous recorder to measure parameters that indicate good combustion operating practices are being used for a boiler or process heater having a design heat input capacity less than 44 MW -- for a condenser, one of the following: --- a monitoring device with a continuous recorder to measure the concentration level of the organic compound in the exhaust vent stream from the condenser --- a temperature monitoring device equipped with a continuous recorder capable of monitoring temperature in the exhaust vent stream from the condenser with an accuracy of +/- 1 percent of the temperature being monitored in Celsius or in +/-0.5 ^{o}C, whichever is greater -- for a carbon absorption system such as a fixed carbon bed absorber that regenerates the carbon bed directly in the control device, one of the following: --- a monitoring device equipped with a continuous recorder to measure the concentration levels of the organic compounds in the exhaust vent stream from the carbon bed --- a monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle. Verify that readings from monitoring devices are checked at least once a day. Verify that, if a carbon absorption system is being used that regenerates the carbon bed directly on-site, the existing carbon in the control device is replaced with fresh carbon at a regular, predetermined time interval. (NOTE: The predetermined time interval is based on the design analysis required under 40 CFR 265.1035(b)(4)(iii)(F).) Verify that if a carbon absorption system is being used that does not regenerate the carbon bed directly on-site in the control device, the existing carbon in the control device is replaced on a regular basis. (NOTE: When to replace the carbon is determined by one of the following procedures: - Monitoring the concentration level of the organic compound in the exhaust vent stream from the carbon absorption system daily or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity, whichever is longer - Replace the carbon at a regular predetermined time interval that is less than the design carbon replacement interval.)

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.64. (continued)	Verify that closed-vent systems meet one of the following: - Are designed and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as determined by the procedures in 40 CFR 265.1034(b) and by visual inspection - Are designed to operate at a pressure below atmospheric pressure and are equipped with at least one pressure gauge or other pressure measurement device that can be read from a readily accessible location.
HW.65. Generators are required to maintain specific records pertaining to process vent emissions (40 CFR 262.34(a)(1)(i), 265.178, and 265.1035).	Verify that the following information is kept in the operating record: - An implementation schedule - Up-to-date documentation of compliance with process vents and with closed-vent systems and control devices - The test plan if test data is used to determine the organic removal efficiency or total organic compound concentration achieved by a control device - Documentation of compliance with 40 CFR 265.1033, including: -- a list of all information, references and sources used in preparing the documentation -- records, including the dates of required compliance tests -- design analysis, specifications, drawing, schematics, and piping and instrumentation diagrams if engineering calculations are used - A statement signed and dated by the operator or owner certifying that the operating parameters used in the design analysis reasonably represent the conditions which exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected - A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 percent or greater unless the total organic concentration limit is achieved at an efficiency of less than 95 weight percent, or the total organic emissions limits for affected process vents can be attained by a control device involving vapor recovery at an efficiency less than 95 weight percent - All performance test results if used to demonstrate compliance - Design documentation - Monitoring and inspection results for each closed-vent system and control device - Notations of exceedance of control device parameter design value - Explanation for each period of exceedance - For carbon absorption systems: -- when the carbon is replaced in carbon absorption systems -- date and time when a control device is monitored for carbon breakthrough - The date of each control device startup and shutdown. Verify that records of monitoring operations and inspection information are kept for 3 years.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.66. Closed-vent systems are required to be monitored, inspected, and leaks repaired (40 CFR 262.34(a)(1)(i), 265.178, 265.1033(k) and 265.1033(n)).	(NOTE: This applies to generators with process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations, that manage hazardous wastes with organic concentrations of at least 10 ppmw, if the operations are conducted in one of the following: - A unit that is subject to the permitting requirements of 40 CFR 270 - A unit (including a hazardous waste recycling unit) that is not exempt from permitting under the provisions of 40 CFR 262.34(a) (i.e., a hazardous waste recycling unit that is not a 90-day tank or container) and that is located at a hazardous waste management facility that is otherwise subject to the permitting requirements of 40 CFR 270 - A unit that is exempt from permitting under the provisions of 40 CFR 262.34(a) (i.e., a 90-day tank or container).) Verify that closed-vent systems designed and operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, are monitored as follows: - An initial leak detection monitoring of the closed-vent system using the procedures specified in 40 CFR 265.1034(b) on or before the date the system became subject to this section of the CFR - After initial leak detection monitoring: -- visual inspection at least once a year for closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) -- whenever a component is repaired or replaced, monitor according to 40 CFR 265.1034(b) -- annually and at times required by the regulatory agency for all other parts of the system using the procedures specified in 40 CFR 265.1034(b). Verify that closed-vent systems designed to operate at no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, are monitored as follows: - Annual visual inspection to check for defects that could result in air pollutant emissions - Initial inspection on or before the date the system becomes subject to this section of the CFR. (NOTE: For closed-vent systems designed to operate at no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, portions of the system designated as unsafe to monitor are exempt from the visual monitoring if: - The components are unsafe to monitor because monitoring personnel would be exposed to an immediate danger - A written plan that requires monitoring as practicable during safe to monitor periods is in place and followed.) Verify that detectable emissions, as indicated by visual inspection or by an instrument reading of greater than 500 ppmv above background, are controlled as soon as practicable but not later than 15 days after the emissions are detected. Verify that a first attempt at repair is made no later than 5 calendar days after the emission is detected. (NOTE: Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown, or if it is determined that the emissions resulting from the immediate repair would be greater than the fugitive emissions likely to result from delay of repair.)

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.67. Closed-vent systems and control devices used to comply with the provisions of 40 CFR 265.1030 through 265.1035 are required to be operated at all times when emissions may be vented to them (40 CFR 262.34(a)(1)(i), 265.178, and 265.1033(l)).	(NOTE: This applies to generators with process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations, that manage hazardous wastes with organic concentrations of at least 10 ppmw, if the operations are conducted in one of the following: - A unit that is subject to the permitting requirements of 40 CFR 270 - A unit (including a hazardous waste recycling unit) that is not exempt from permitting under the provisions of 40 CFR 262.34(a) (i.e., a hazardous waste recycling unit that is not a 90-day tank or container) and that is located at a hazardous waste management facility that is otherwise subject to the permitting requirements of 40 CFR 270 - A unit that is exempt from permitting under the provisions of 40 CFR 262.34(a) (i.e., a 90-day tank or container).) Verify that closed-vent systems and control devices are operated at all times when emissions may be vented to them.
HW.68. When carbon absorption systems are used, operators are required to manage all carbon that is a hazardous waste according to specific parameters (40 CFR 262.34(a)(1)(i), 265.178, and 265.1033(m)).	(NOTE: This applies to generators with process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations, that manage hazardous wastes with organic concentrations of at least 10 ppmw, if the operations are conducted in one of the following: - A unit that is subject to the permitting requirements of 40 CFR 270 - A unit (including a hazardous waste recycling unit) that is not exempt from permitting under the provisions of 40 CFR 262.34(a) (i.e., a hazardous waste recycling unit that is not a 90-day tank or container) and that is located at a hazardous waste management facility that is otherwise subject to the permitting requirements of 40 CFR 270 - A unit that is exempt from permitting under the provisions of 40 CFR 262.34(a) (i.e., a 90-day tank or container).) Verify that carbon removed from control devices that is a hazardous waste is managed in one of the following manners, regardless of the average VOC concentration of the carbon: - Regenerated or reactivated in a thermal treatment unit that meets one of the following: -- the unit has a final permit under 40 CFR 270 which implements the requirements of 40 CFR 264, subpart X -- the unit is equipped with and operating air emission controls in accordance with applicable requirements - Incinerated in a hazardous waste incinerator for which the operator either: -- has a final permit under 40 CFR 270 which implements the requirements of 40 CFR 264, subpart O -- has designed and operates the incinerator in accordance with the interim status required in 40 CFR 265, subpart O - Burned in a boiler or industrial furnace for which the operator either: -- has been issued a final permit under 40 CFR 270 implementing 40 CFR 266 -- has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of 40 CFR 266, subpart H.

<table>
<tr><th colspan="2">Compliance Category:
Hazardous Waste Management</th></tr>
<tr><th>Regulatory Requirement or Management Practice:</th><th>Reviewer Checks:</th></tr>
<tr><td colspan="2">Air Emission Standards for Equipment Leaks</td></tr>
<tr><td colspan="2">(NOTE: This section applies to equipment that contains or contacts hazardous waste with organic concentrations of at least 10 percent by weight that are managed in one of the following (40 CFR 265.1050(b):
– A unit that is subject to the permitting requirements of 40 CFR 270
– A unit (including a hazardous waste recycling unit) that is not exempt from permitting under the provisions of 40 CFR 262.34(a) (i.e., a hazardous waste recycling unit that is not a 90-day tank or container) and that is located at a hazardous waste management facility that is otherwise subject to the permitting requirements of 40 CFR 270
– A unit that is exempt from permitting under the provisions of 40 CFR 262.34(a) (i.e., a 90-day tank or container) and is not a recycling unit under the provisions of 40 CFR 261.6.)

(NOTE: This section does not apply to (40 CFR 265.1050(d) and 265.1050(e)):
– Equipment that is in vacuum service and is identified as such on the required list
– Equipment that contains or contacts hazardous waste with an organic concentration of at least 10 percent by weight for less than 300 hours per calendar year and is identified as such.)</td></tr>
<tr><td>HW.69. Generators with pumps in light liquid service, that contain or contact hazardous wastes with organic concentrations of at least 10 percent by weight, are required to meet specific standards (40 CFR 262.34(a)(1)(i), 265.178, 265.1052).</td><td>Verify that pumps in light liquid service are monitored monthly according to designated reference methods and inspected visually weekly.

(NOTE: A leak is detected if there is an instrument reading of 10,000 ppm or greater or if there is an indication of liquid dripping from the pump seal.)

Verify that, when a leak is detected, the first attempt at repair is made within 5 calendar days and repair is completed within 15 calendar days.

(NOTE: Pumps equipped with dual mechanical seal systems and pumps designated for no detectable emissions that meet standards outlined here do not have to be monitored monthly or visually checked weekly.)

Verify that pumps equipped with a dual mechanical seal system which do not have to be monitored monthly or visually checked weekly, meet the following design and operation requirements:
– The dual mechanical seal system is operated with barrier fluid at a pressure that is at all times greater than the pump stuffing box, or equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device, or equipped with a system that purges the barrier fluid into a hazardous waste stream with no detectable emission to the atmosphere
– The barrier fluid system has no hazardous waste with organic concentrations 10 percent or greater by weight
– The barrier fluid system is equipped with a sensor that will detect failure if the seal is broken
– Pumps are checked by visual inspection weekly
– Sensors are checked daily or equipped with an audible alarm that is checked monthly.

(NOTE: Each owner or operator must determine, based on design considerations and operating experience, criteria that indicate failure of the seal system, the barrier fluid system, or both.)

Verify that pumps designated for no detectable emissions meet the following:
– They are operated with no detectable emissions, as indicated by an instrument reading of 500 ppm above background or less
– They are tested for compliance as indicated by an instrument reading of 500 ppm above background or less initially upon designation, annually, and at other times as requested by the regulatory agency
– No externally actuated shaft penetrates the pump housing.</td></tr>
</table>

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.69. (continued)	(NOTE: Any pump that is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a control device is exempt from all above requirements.)
HW.70. Generators with compressors that contain or contact hazardous wastes with organic concentrations of at least 10 percent by weight are required to meet specific standards (40 CFR 262.34(a)(1)(i), 265.178, and 265.1053).	Verify that each compressor is equipped with a seal system which includes a barrier fluid system and prevents leakage of total organic emissions to the atmosphere except if: – It is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal to a control device, and – It is designated for no detectable emissions as indicated by an instrument reading of less than 500 ppm above background, and – It is tested for compliance initially upon designation, annually, and at times as requested by the regulatory agency. Verify that the compressor seal systems meet one of the following: – It is operated with the barrier fluid at a pressure that is at all times greater than the compressor stuffing box pressure – It is equipped with a barrier fluid system that is connected to a closed-vent system or a control device – It is equipped with a system that purges the barrier fluid into a hazardous waste stream with no detectable emissions to the atmosphere. Verify that the barrier fluid is not a hazardous waste with organic concentrations 10 percent or greater by weight. Verify that each barrier system is equipped with a sensor which will detect failure of the seal system, barrier fluid system, or both. Verify that each sensor is checked daily or it is equipped with an audible alarm that is checked monthly. (NOTE: Sensors on compressors located within the boundary of an unmanned site must be checked daily.) (NOTE: Each owner or operator must determine, based on design considerations and operating experience, criteria that indicate failure of the seal system, the barrier fluid system, or both.) Verify that, when a leak is detected, the first attempt at repair is made within 5 calendar days and the repair is made within 15 calendar days.
HW.71. Generators with pressure relief devices in gas/vapor service that contain or contact hazardous waste with organic concentrations of at least 10 percent by weight are required to meet specific standards (40 CFR 262.34(a)(1)(i), 265.178, and 265.1054).	Verify that, except during pressure releases, each pressure relief device in gas/vapor service is operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background. Verify that if there is a pressure release, the device is returned to a no detectable emission status within 5 calendar days and the device is monitored to ensure compliance. (NOTE: Any pressure relief device that is equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device is exempt from these requirements.)

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.72. Generators with sampling connecting systems that contain or contact hazardous wastes with organic concentrations of at least 10 percent by weight are required to meet specific standards (40 CFR 262.34(a)(1)(i), 265.178, and 265.1055).	Verify that each sampling connection system is equipped with a closed-purge, closed loop system or closed-vent system. Verify that each system collects the sample purge for return to the processing or for routing to the appropriate treatment system. (NOTE: Gases displaced through filling of the sample container are not required to be collected or captured.) Verify that each closed-purge, closed-loop system or closed-vent system does one of the following: – Returns the purged process fluid directly to the process line – Collects and recycles the purged process fluid – Is designed and operated to capture and transport all the purged process fluid to a waste management unit that is in compliance or a control device that is in compliance, (NOTE: In-situ sampling systems are exempt from these requirements.)
HW.73. Generators with open-ended valves or lines that contain or contact hazardous wastes with organic concentrations of at least 10 percent by weight are required to meet specific standards (40 CFR 262.34(a)(1)(i), 265.178, and 265.1056).	Verify that each open-ended valve or line is equipped with a cap, blind flange, plug or second valve. Verify that the cap, blind flange, plug, or second valve seals the open end at all times, except during operations requiring hazardous waste stream flow through the open-ended valve or line. Verify that each open-ended valve or line equipped with a second valve is operated so the valve on the hazardous waste stream end is closed before the second valve is closed. Verify that, when a double block and bleed system is being used, the bleed valve is shut or plugged except during operations that require venting the line between the block valves.
HW.74. Generators with valves in gas/vapor service or light liquid service, that contain or contact hazardous wastes with organic concentrations of at least 10 percent by weight, are required to meet specific monitoring and repair standards (40 CFR 262.34(a)(1)(i), 265.178, 265.1057, and 265.1062).	Verify that valves in gas/vapor service or light liquid service are monitored monthly to detect leaks. (NOTE: A leak is detected if an instrument reading of 10,000 ppm or greater is measured. If a leak is not detected for 2 consecutive months, monitoring may be cut back to quarterly until a leak is detected.) (NOTE: Valves that are designated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, do not have to be monitored monthly if: – The valve has no external actuating mechanism in contact with the hazardous waste stream – The valve is operated with emissions less than 500 ppm above background – The valve is tested initially upon designation, annually, and at the request of the regulatory agency.) (NOTE: Valves that are designated as unsafe to monitor are exempt from the requirement for monthly monitoring if: – The valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger – A written monitoring plan is followed that requires monitoring as often as is reasonably practicable during safe to monitor times.)

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.74. (continued)	(NOTE: The generator may elect to have all valves within a hazardous waste management unit comply with an alternative standard of no greater than 2 percent of the valves to leak; see checklist item HW.78.) (NOTE: Valves that are designated as difficult to monitor are exempt from the requirement for monthly monitoring if: – The valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface – The hazardous waste management unit within which the valve is located was in operation before 21 June 1990 – A written monitoring plan is followed that requires the monitoring of the valve at least once per calendar year.) (NOTE: The following are alternatives to the prescribed monitoring schedule which can be used until the percentage of valves leaking is greater than 2 percent: – After 2 consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 2 percent, an owner or operator may begin to skip one of the quarterly leak detection periods for the valves subject to 40 CFR 265.1057 – After 5 consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 2 percent, an owner or operator may begin to skip three of the quarterly leak detection periods for the valves subject to 40 CFR 265.1057.) Verify that the first attempt at repairing a leak is done within 5 calendar days after detection and leak repair is completed within 15 calendar days after detection. (NOTE: First attempts at repair include but are not limited to: – Tightening of bonnet bolts – Replacement of bonnet bolts – Tightening of packing gland nuts – Injection of lubricant into lubricated packaging.)
HW.75. Generators with pumps and valves in heavy liquid service, pressure relief devices in light liquid service or heavy liquid service, and other connectors that contain or contact hazardous wastes with organic concentrations of at least 10 percent by weight are required to meet specific monitoring and repair standards (40 CFR 262.34(a)(1)(i), 265.178, and 265.1058).	Verify that pumps and valves in heavy liquid service, pressure relief devices in light liquid service or heavy liquid service, and other connectors are monitored within 5 days if evidence of a potential leak is found by visual, olfactory, audible, or other detection method. (NOTE: Any connector that is inaccessible or is ceramic or ceramic-lined is exempt from the monitoring requirements.) (NOTE: A leak is detected if an instrument reading of 10,000 ppm or greater is measured.) Verify that, when a leak is detected, the first attempt at repair occurs within 5 days and repair is done within 15 days after discovery. (NOTE: First attempts at repair include, but are not limited to: – Tightening of bonnet bolts – Replacement of bonnet bolts – Tightening of packing gland nuts – Injection of lubricant into lubricated packaging.)

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.76. Generators are required to keep specific records pertaining to the valves, pumps, pressure relief devices, and connecting systems being monitored for leaks and to submit certain reports (40 CFR 262.34(a)(1)(i), 265.178, 265.1058(e) and 265.1064).	Verify that the following information is maintained in the generator's operating record: - Equipment identification number and hazardous management unit identification - Approximate locations - Type of equipment - Percent-by-weight total organics in the hazardous waste stream at the equipment - Hazardous waste state at the equipment (gas, liquid, vapor) - Method of compliance - Implementation schedule if needed - A performance plan for control devices if needed - Documentation of compliance - Documentation of repair, including: -- the instrument and operator identification numbers and the equipment identification number -- the date evidence of a potential leak was found -- the date the leak was detected and the date of each attempt to repair the leak -- repair methods applied in each attempt -- "Above 10,000" if the maximum instrument reading after each repair attempt is greater than 10,000 ppm -- "Repair Delayed" and the reason for delay if the leak is not repaired within 15 calendar days after discovery -- documentation supporting the delay of repair of a valve -- signature of the owner or operator whose decision it was that the repair could not be effected without a hazardous waste management unit shutdown -- the expected date of successful repair of the leak when it is not repaired within 15 calendar days -- the date of the successful repair of the leak - Design documentation and monitoring, operating, and inspection information for each closed-vent system control device required to comply with the provisions of 40 CFR 265.1060 - Monitoring and inspection information indicating proper operation and maintenance of the control device for a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon absorption system - The following information for all equipment subject to 40 CFR 265.1052 through 40 CFR 265.1060: -- a list of identification numbers for equipment (except welded fittings) -- a list of identification numbers for equipment that the owner or operator elects to designate for no detectable emissions -- a list of equipment identification numbers for pressure relief devices -- the dates of required compliance tests, background levels, and maximum instrument reading measured during the compliance test -- a list of identification numbers for equipment in vacuum service -- identification either by list or location (area or group) of equipment that contains or contacts hazardous waste with an organic concentration of at least 10 percent by weight for less than 300 hours per calendar year. Verify that the following information is kept for all valves subject to 40 CFR 265.1057(g) and (h): - A list of identification numbers for valves listed as unsafe to monitor, an explanation for each valve stating why it is difficult to monitor, and the plan for monitoring each valve - A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why it is difficult to monitor, and the plan for monitoring each valve - The following for all valves complying with 40 CFR 265.1062: -- a schedule of monitoring -- the percent of valves found leaking in each monitoring period.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.76. (continued)	Verify that the following information is kept for use in determining exemptions: – An analysis determining the design capacity of the unit – A statement listing the hazardous waste influent to and effluent from each unit subject to 40 CFR 265.1052 through 265.1060 and an analysis determining whether these hazardous wastes are heavy liquids – An up-to-date analysis and the supporting information and data used to determine if equipment is subject to the requirements. (NOTE: Any connector that is inaccessible or is ceramic or ceramic lined is exempt from the recordkeeping requirements.)
HW.77. Each piece of equipment subject to the requirements in 40 CFR 265.1050 through 265.1064 is required to be marked so that it can be distinguished from other equipment (40 CFR 262.34(a)(1)(i), 265.178, and 265.1050(c)).	Verify that each piece of equipment subject to the requirements in 40 CFR 265.1050 through 265.1064 (see checklist items HW.69 through HW.76) is marked so that it can be distinguished from other equipment.
HW.78. When a generator has elected to comply with alternative standards, specific actions are required (40 CFR 262.34(a)(1)(i) and 265.1061).	Determine if the owner/operator subject to 40 CFR 265.1057 (see checklist item HW.74) has elected to have all valves within a hazardous waste management unit comply with an alternative standard of allowing 2 percent of the valves to leak. Verify that the following actions have been taken if the owner/operator has decided to comply with the 2 percent alternative: – The regulatory agency has been notified of the choice to comply with the alternative standards – A performance test was conducted initially upon designation, annually, and at other times as required by the regulatory agency – If a valve leak is detected, first attempt at repair is within five calendar days and leak repair is completed within 15 days after detection. Verify that if the owner/operator has decided to no longer comply with the 2 percent rule, the regulatory agency has been notified.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
Satellite Accumulation Points	
HW.79. Generators may accumulate as much as 55 gal. of hazardous waste or 1 qt. of acutely hazardous waste in containers at or near any point of initial generation without complying with the requirements for on-site storage if specific standards are met (40 CFR 262.34(c)).	(NOTE: This type of storage area is often referred to as a satellite accumulation point.) Verify that the satellite accumulation point is at or near the point of generation and is under the control of the operator of the waste generating process. Verify that the containers are in good condition and are compatible with the waste stored in them and the containers are kept closed except when waste is being added or removed. Verify that the containers are marked HAZARDOUS WASTE or other appropriate identification. (NOTE: See Appendices A, B, C, D, and E for a guidance list of hazardous and acutely hazardous wastes.) Verify by interviewing the shop managers that when waste is accumulated in excess of quantity limitations, the following actions are taken: - The excess container is marked with the date the excess amount began accumulating - The waste is transferred to a 90 day or permitted storage area within three days.
Container Storage Areas	
HW.80. *At generators, containers of hazardous waste should be kept in designated storage areas (MP).*	*Verify that all containers are identified and stored in appropriate areas.* *(NOTE: Any unidentified contents of solid waste containers and/or containers not in designated storage areas must be tested to determine if solid or hazardous waste requirements apply.)*
HW.81. Containers holding ignitable or reactive waste must be located 15 m (50 ft.) from the property line of the facility (40 CFR 262.34(a)(1)(i) and 265.176).	Determine the distance from storage containers holding ignitable or reactive waste to the property line.
HW.82. Generator personnel must conduct weekly inspections of container storage areas (40 CFR 262.34(a)(1)(i) and 265.174).	Verify that inspections are conducted at least weekly to look for leaking containers and signs of deterioration of containers.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
Containment Buildings	
(NOTE: According to the `Background Information` published on page 37221 of the August 18, 1992, edition of the Federal Register, a hazardous waste containment building involves "the management of a hazardous waste inside a unit designed and operated to contain the hazardous waste within the unit". This is not a building that holds drums or tanks filled with hazardous waste, but a building that holds the hazardous waste itself.)	
HW.83. Generators with containment buildings that are in compliance are not subject to the definition of land disposal if specific requirements are met (40 CFR 262.34(a)(1)(iv) and 265.1100).	Verify that the containment building meets the following: - It is a completely enclosed, self-supporting structure that is designed and constructed of manmade materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit - It is designed to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes, climatic conditions, and the stress of daily operations - It has a primary barrier that is designed to be sufficiently durable to withstand the movement of personnel, wastes, and handling of equipment within the unit - If the unit is used to manage liquids: -- there is a primary barrier designed and constructed of materials to prevent migration of hazardous constituents into the barrier -- there is a liquid collection system designed and constructed of materials to minimize the accumulation of liquid on the primary barrier -- there is a secondary containment system designed and constructed of materials to prevent migration of hazardous constituents into the barrier, with a leak detection and liquid collection system capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time - It has controls sufficient to prevent fugitive dust emissions - It is designed and operated to ensure containment and prevent the tracking of materials from the unit by personnel and equipment.
HW.84. Containment buildings are required to be designed according to specific standards (40 CFR 262.34(a)(1)(iv), 265.1101(a)(1), 265.1101(a)(2), 265.1101(a)(4), and 265.1101(b)).	Verify that containment buildings meet the following design standards: - It is completely enclosed with a floor, walls, and a roof to prevent exposure to the elements and to assure containment of wastes - The floor and containment walls, including any required secondary containment system, are designed and constructed of man-made materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit - It is designed to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes, climatic conditions, and the stress of daily operations - It has sufficient structural strength to prevent collapse or other failure - All surfaces in contact with hazardous wastes are compatible with the wastes - It has a primary barrier that is designed to be sufficiently durable to withstand the movement of personnel, wastes, and handling of equipment within the unit and is appropriate for the chemical and physical characteristics of the waste.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.84. (continued)	Verify that if the containment building is going to manage hazardous wastes with free liquids or treated with free liquids, the following design requirements are also met: - There is a primary barrier designed and constructed of materials to prevent migration of hazardous constituents into the barrier (e.g., a geomembrane covered by a concrete wear surface) - There is a liquid collection and removal system designed and constructed of materials to minimize the accumulation of liquid on the primary barrier -- the primary barrier is sloped to drain liquids to the associated collection system -- liquids and wastes are collected and removed to minimized hydraulic head on the containment system at the earliest practicable time - There is a secondary containment system, including a secondary barrier, designed and constructed of materials to prevent migration of hazardous constituents into the barrier, with a leak detection and liquid collection system capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time - The leak detection component of the secondary containment system meets the following: -- it is constructed with a bottom slope of 1 percent or more -- it is constructed of granular drainage materials with a hydraulic conductivity of 1 x 10^{-2} cm/sec or more and a thickness of 12 inches (30.5 cm) or more, or constructed of synthetic or geonet drainage materials with a transmissivity of 3 x 10^{-5} m^2/sec or more - If treatment is to be conducted in the building, the treatment area is designed to prevent the release of liquids, wet materials, or liquid aerosols to other portions of the building - The secondary containment system is constructed of materials that are chemically resistant to the waste and liquids managed in the building and of sufficient strength and thickness to prevent collapse under pressure exerted by overlaying materials and by any equipment used. (NOTE: An exception to the structural strength requirement may be made for lightweight doors and windows based on the nature of the waste management operations if the following criteria are met: - The doors and windows provide an effective barrier again fugitive dust emissions - The unit is designed and operated in a manner that ensures that the waste will not come in contact with the doors or windows.) (NOTE: A containment building can serve as secondary containment systems for tanks within the building if it meets the requirements of 40 CFR 264.193(b), 264.193(c)(1) and (2), and 264.193(d).)

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.85. Containment buildings are required to be operated according to specific standards (40 CFR 262.34(a)(1)(iv), 265.1101(a)(3), 265.1101(c)(1), and 265.1101(c)(4)).	Verify that incompatible wastes or treatment reagents are not placed in the building or its secondary containment system if they could cause the unit or the secondary containment system to leak, corrode, or otherwise fail. Verify that the following operational procedures are done: - Controls and practices are used to ensure the containment of the waste within the building - The primary barrier is maintained so that it is free of significant cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the primary barrier - The level of the stored/treated hazardous waste is maintained so that the height of any containment wall is not exceeded - Measures are implemented to prevent the tracking of hazardous waste out of the unit by personnel or equipment used in the handling of the waste - There is a designated area for the decontamination of equipment and collection of rinsate - Any collected rinsate is managed as needed according to its constituents - Measures are implemented to control fugitive dust emissions so that no openings exhibit visible emissions - Particulate collection devices are maintained and operated according to sound air pollution control practices. Verify that data is gathered from monitoring equipment and leak detection equipment and the site is inspected at least once every seven days and the results recorded in the operating record. Verify that there is a written description of procedures to ensure that waste does not remain in the building for more than 90 days. Verify that there is documentation that the waste does not remain for more than 90 days.
HW.86. Containment buildings are required to be certified by a registered professional engineer (40 CFR 262.34(a)(1)(iv) and 265.1101(c)(2)).	Verify by reviewing the documentation that the building has been certified.
HW.87. Leaks in containment buildings must be repaired and reported (40 CFR 262.34(a)(1)(iv) and 265.1101(c)(3)).	Verify that if a condition is detected that could lead to a leak or has already caused a leak, it is repaired promptly. Verify that when a leak is discovered: - The discovery is recorded in the facility operating record - The portion of the containment building that is affected is removed from service - A cleanup and repair schedule is established - Within seven days the regulatory agency is notified and within 14 working days written notice is provided to the regulatory agency - The regulatory agency is notified upon the completion of all repairs, and certification from a registered professional engineer is also submitted.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.88. Containment buildings that contain both areas with and without secondary containment must meet specific requirements (40 CFR 262.34(a)(1)(iv), 264.1101(d), and 265.1101(d)).	Verify that each area is designed and operated according to the appropriate requirements. Verify that measures are taken to prevent the release of liquids or wet materials into areas without secondary containment. Verify that a written description is maintained in the facilities operating log of operating procedures used to maintain the integrity of areas without secondary containment.
HW.89. When a containment building is closed, specific requirements must be met (40 CFR 262.34(a)(1)(iv), 264.1102, and 265.1102).	Determine if the facility has closed a containment building recently. Verify that at closure, all waste residues, contaminated containment system components, contaminated subsoils, and structures and equipment contaminated with waste and leachate were removed or decontaminated. Verify that the containment building is closed in accordance with closure and post-closure requirements for TSDFs. Verify that if it is found that not all contaminated subsoils can be practicably removed or decontaminated, the site is closed and landfill post-closure requirements are implemented.
Disposal of Restricted Waste	
HW.90. Facilities that generate hazardous wastes must test their wastes or use process knowledge to determine if they are restricted from land disposal (40 CFR 268.7).	Determine whether the generator tests for restricted wastes. Determine if the facility generates restricted wastes by reviewing test results or reviewing procedures employed by facility management where process knowledge was applied in making the waste determination.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.91. When a generator is managing a restricted waste, a notice must be issued to the TSDF in writing of the appropriate treatment standards and prohibition levels (40 CFR 268.7(a)(2) through 268.7(a)(4), and 268.7(a)(10)).	(NOTE: EPA is changing the notification requirement under 40 CFR 268.7 to a one-time notification and certification if the composition of the wastes, the process generating the wastes, and the treatment facility receiving the waste do not change (see FR Vol. 62, No. 91, May 12, 1997; pg. 26004).) Verify that, for waste or soil which does <u>not</u> meet the applicable treatment standards or exceeds the applicable prohibition levels, the notice is issued and includes: – The EPA hazardous waste code and manifest numbers – The waste is subject to the LDRs and the constituents of concern for F001-F005 and F039 and underlying hazardous constituents in characteristic wastes, unless the waste will be treated and monitored for all constituents (If all constituents will be treated and monitored, there is no need to put them all on the LDR notice) – Whether the waste is a nonwastewater or wastewater – The subcategory of the waste determination, if applicable – For hazardous debris, when treating with the alternative treatment technologies provided in 40 CFR 268.45, the contaminants subject to treatment, as described in 268.45(b), and an indication that these contaminants are being treated to comply with 268.45. – For contaminated soil subject to LDRs provided in 40 CFR 268.49(a), the constituents subject to treatment described in 268.49(d), and the following statement: "This contaminated soil [does/does not] exhibit a characteristic of hazardous waste and [is subject to/complies with] the soil treatment provided in 268.49(c) or the universal treatment standards." Verify that, for waste or contaminated soil <u>which meets</u> the treatment standard at the original point of generation, the notice includes: – The EPA hazardous waste code and manifest numbers – The waste is subject to the LDRs and the constituents of concern for F001-F005 and F039 and underlying hazardous constituents in characteristic wastes, unless the waste will be treated and monitored for all constituents (If all constituents will be treated and monitored, there is no need to put them all on the notice.) – Whether the waste is a nonwastewater or wastewater – The subcategory of the waste determination, if applicable – For contaminated soil subject to LDRs provided in 40 CFR 268.49(a), the constituents subject to treatment described in 268.49(d), and the following statement: "This contaminated soil [does/does not] exhibit a characteristic of hazardous waste and [is subject to/complies with] the soil treatment provided in 268.49(c) or the universal treatment standards." – Waste analysis data, when available – The signature of an authorized representative certifying that the waste complies with the treatment standards of 40 CFR 268 (the text of the required certification statement can be found in 40 CFR 268.7(3)(i)). Verify that, for restricted waste which is <u>subject to an exemption</u> from a prohibition of the type of land disposal used, the notice states that the waste is not prohibited from land disposal and includes: – The EPA hazardous waste code and manifest number – Statement that this waste is not prohibited from land disposal – Waste analysis data, when available – The date the waste is subject to the prohibition – For hazardous debris, when treating with the alternative treatment technologies provided in 40 CFR 268.45, the contaminants subject to treatment, as described in 268.45(b), and an indication that these contaminants are being treated to comply with 268.45.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.92. Generators that are managing prohibited wastes in tanks, containers, or containment buildings and treating the waste to meet applicable treatment standards, must develop and follow a written waste analysis plan (40 CFR 268.7(a)(5) and 268.7(a)(10)).	Verify that the plan describes the procedures that the generator will carry out to comply with treatment standards. (NOTE: Generators treating hazardous debris under the alternative treatment standards are not required to conduct waste analysis.) Verify that the plan is kept on-site and: – The plan is based on a detailed chemical and physical analysis of representative sample of the prohibited waste being treated – Contains all information necessary to treat the waste in accordance with regulatory requirements including the selected testing frequency – The plan is kept in the on-site files and made available to regulatory inspectors.
HW.93. Generators are required to keep specific documents pertaining to restricted wastes on-site (40 CFR 268.7(a)(5) through 268.7(a)(7) and 268.7(a)(10)).	Verify that if the facility is using generator knowledge to determine whether a waste or contaminated soil is restricted from land disposal, the supporting data used in making this determination is retained on-site in the generator's files. Verify that if the facility has determined whether a waste is restricted using appropriate test methods, the waste analysis data is retained on-site. Verify that if the facility has determined that they are managing a restricted waste that is excluded from the definition of a hazardous waste or solid waste or exempt from RCRA Subtitle C, a one-time notice is placed in the facility's files stating that the generated waste is excluded. Verify that a copy of all notices, certifications, waste analysis data and other documentation is kept for at least three years from the date that the waste was last sent to an on-site or off-site TSDF.
HW.94. Generators who first claim that hazardous debris is excluded from the definition of hazardous waste are required to meet specific notification and certification requirements (40 CFR 268.7(d)).	Verify that a one-time notification is submitted to the regulatory agency including the following: - The name and address of the facility receiving the treated waste - A description of the hazardous debris as initially generated, including the applicable EPA hazardous waste codes, treatability groups, and underlying hazardous constituents - For excluded debris, the technology used to treat the debris. Verify that the notification is updated if the debris is shipped to a different facility. Verify that for debris that is excluded, if a different type of debris is treated or if a different technology is used to treat the debris, the notification is updated.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.95. The storage of hazardous waste that is restricted from land disposal is not allowed unless specific conditions are met (40 CFR 268.50).	Verify that land disposal restricted waste is not stored at the facility unless the generator is storing the wastes in tanks, containers, or containment buildings on-site only for the purpose of accumulating enough quantity of hazardous waste to facilitate proper recovery, treatment, or disposal and all appropriate standards for containers, tanks, and containment buildings are met. (NOTE: If the 90 day storage period is exceeded, the generator is required to be permitted as a TSDF.) (NOTE: The prohibition on storage does not apply to hazardous wastes that have met treatment standards.) Verify that liquid hazardous wastes containing PCBs at concentrations greater than 50 ppm are stored at a site that meets the requirements of 40 CFR 761.65(b) (see the Toxic Substances Control Act (TSCA)) and is removed from storage within one year of the date it was first placed into storage.
Transportation of Hazardous Waste	
HW.96. Transporters of hazardous waste that is required to be manifested must have an EPA identification number and must comply with manifest management requirements (40 CFR 263.10(a), 263.10(b), 263.11, 263.20(a) through 263.20(d), 263.21 and 263.22(a)).	(NOTE: These requirements do not apply to the on-site transportation of hazardous waste.) Determine if the facility transports hazardous waste off-site by using their own vehicles or a contractor. Verify that the transporter has an EPA identification number. Verify that all waste accepted, transported, or offered for transport is accompanied by a manifest. Verify that prior to transport, the transporter signs and dates the manifest and returns a copy to the generator prior to leaving the facility. Verify that the transporter retains a copy of the manifest after delivery. Verify that all wastes accepted by the transporter are delivered to the designated facility listed on the manifest, or the alternate designated facility if an emergency prevents delivery, or the next designated transporter or the place outside the United States designated by the generator. (NOTE: If the transporter cannot deliver the hazardous waste to the facilities or transporters designated on the manifest, the transporter must contact the generator for further directions and revise the manifest according to the generator's instructions.) Verify that manifests are kept on file for three years. (NOTE: Special issues involved in the transportation of hazardous waste by air, rail or water are not addressed in this guide.)

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.97. Before transporting hazardous waste or offering hazardous waste for transportation off-site in the United States, the facility must package and label the waste in accordance with DOT regulations contained in 49 CFR 172, 173, 178, and 179 (40 CFR 262.30 through 262.33).	Determine what pretransport procedures for hazardous waste are used. Inspect a sample of containers awaiting transport to verify that containers are properly constructed and exhibit no leaks, corrosion, or bulges. Examine end-seams for minor weeping that indicates drum failure. Verify that labeling and marking on each container is compatible with the manifests. Verify that the following information is displayed on a random sample of containers of 110 gal. (416.40 L) or less in accordance with 49 CFR 172.304: - "HAZARDOUS WASTE - Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency." - Generator's name and address - Manifest Document Number ____ . Verify that proper DOT placarding is available for the transporter.
HW.98. Transporters of waste off-site must take immediate notification and clean-up action if a discharge occurs during transport (40 CFR 263.30 and 263.31).	Verify that transport operators have instructions to notify local authorities and take clean-up action so that the discharge does not present a hazard. Verify that transporters give notice to the NRC and report in writing as required by 49 CFR 171.15 and 49 CFR 171.16.
HW.99. *The facility should ensure that transportation of hazardous wastes between buildings is accomplished in accordance with good management practices to help prevent spills, releases, and accidents (MP).*	*Determine if procedures exist to manage movement of hazardous wastes throughout the facility.* *Determine if drivers are trained in spill control procedures.* *Determine if provisions have been made for securing wastes in vehicles during transport.*
HW.100. Transporters must not store manifested shipments in containers meeting DOT packaging requirements for more than 10 days at a transfer facility (40 CFR 263.12).	Determine if the facility has a transfer facility. Verify the following: - Transfer facility storage is for 10 days or less - DOT packaging requirements are met - Shipments are manifested and manifests accompany shipments - Storage is consistent with good management practices. (NOTE: Storage for more than 10 days will require a TSDF permit.) Verify that transporters do not store manifested shipments of land disposal restricted wastes for more than 10 days (40 CFR 268.50(a)(3)).

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
Export/Import of Hazardous Waste	
Exports of Hazardous Waste for Recovery within the OECD Member Countries	
HW.101. A U.S. Notifier that exports amber list or red list hazardous waste (see 40 CFR 262.89 and 262.82) destined for recovery operations (see 40 CFR 262.81(k)) in an OECD member country (40 CFR 262.58(a)) must comply with notification requirements (40 CFR 262.83).	Determine whether the importing country is an Organization for Economic Coordination and Development (OECD) member country [Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States]. (NOTE: The following countries have become OECD member countries since EPA promulgated its OECD regulations in 1996: South Korea, Czech Republic, Poland, and Hungary. EPA plans to amend its regulations to reflect these new OECD countries. In the interim, EPA strongly recommends that U.S. exports to these new OECD countries comply with the applicable OECD regulations, since these countries would expect compliance with OECD requirements for shipments they receive from the U.S.) Determine whether the waste is destined for recovery operations, including resource recovery, recycling, reclamation, direct re-use or alternative uses. Verify that 45 days prior to shipment of hazardous waste, the facility has notified EPA (in writing) of the following: – Serial number or other accepted identifier of the notification form – Name, address, telephone and telefax numbers, and EPA ID number of the notifier – Name, address, telephone and telefax numbers of any consignee (other than the owner or operator of the recovery facility) and whether the consignee will exchange or store the waste before delivery to the final recovery facility – Intended transporters and any agents – Country of export and point of departure – Countries of transit, relevant competent authority, and point of entry and departure – Country of import, relevant competent authority, and point of entry – Statement of whether the notification is for a single or multiple shipments and, for multiple shipments, period of validity requested – Date foreseen for shipments to begin – Designation of waste types from the appropriate list (amber or red and waste list code), descriptions of each waste type, estimated total quantity of each, RCRA waste code, and United Nations number for each waste type **and** – Signed certification that states the following: "I certify that the above information is complete and correct to the best of my knowledge. I also certify that legally-enforceable written contractual obligations have been entered into, and that any applicable insurance or other financial guarantees are or shall be in force covering the transfrontier movement." (NOTE: The U.S. does not currently require financial assurance; however, U.S. exporters may be asked by other governments to provide and certify to such assurance as a condition of obtaining consent to a proposed movement.) (NOTE: If wastes with similar physical and chemical characteristics, the same United Nations classification, and the same RCRA waste codes are to be sent to the same recovery facility by the same notifier, the notifier may submit one notification of intent to export these wastes in multiple shipments during a period of up to one year.)

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.101. (continued)	(NOTE: For amber list wastes to be shipped to a recovery facility pre-approved by the competent authority of the receiving country, the notifier must provide the above information to EPA at least 10 days prior to shipment. Waste may be shipped as soon as the notification has been received by the competent authorities in the exporting, importing, and transit countries unless the notifier receives information indicating that any country objects to the shipment.) For amber list wastes, verify that either (1) no objection was lodged by any exporting, importing, or transit countries within 30 days after issuance of the Acknowledgment of Receipt of notification by the competent authority of the importing country or (2) the competent authorities of all importing and transit countries provided written consent within 30 days. For red list wastes, verify that written consent was received from the importing country and any transit countries prior to export.
HW.102. A U.S. notifier must execute a valid written contract or chain of contracts with the recovery facility that specifies the responsibilities of each (40 CFR 262.85).	Verify that contracts specify the name and EPA ID number, where available, of: - The generator of each type of waste - Each person who will have physical custody of the waste - Each person who will have legal control of the waste **and** - The recovery facility. Verify that contracts specify: - Which party will assume responsibility for alternate management of the wastes if it cannot be carried out as described in the notification of intent to export - That the person with actual possession or physical control over the waste will immediately notify the notifier and the competent authorities of the exporting and importing countries and transit country if wastes are located in a country of transit - The person specified in the contract who will assume responsibility for the adequate management of the wastes including, if necessary, arranging for their return to the original country of export - Notification prior to re-export to a third country **and** - Provisions for financial guarantees.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.103. A U.S. notifier must ensure that a tracking document accompanies each shipment of amber or red list wastes until it reaches the final recovery facility (40 CFR 262.84).	Verify that a copy of the tracking document is attached to the shipment. Verify that the tracking document includes all information contained in the notification and the following: - The date shipment commenced - Name, address, telephone and telefax numbers of primary exporter, if different than the notifier - Name and EPA ID number of all transporters - Any special precautions to be taken by transporters - Signed certification that states the following: "I certify that the above information is complete and correct to the best of my knowledge. I also certify that legally-enforceable written contractual obligations have been entered into, and that any applicable insurance or other financial guarantees are or shall be in force covering the transfrontier movement, and that: 1. All necessary consents have been received; OR 2. The shipment is directed at a recovery facility within the OECD area and no objection has been received from any of the concerned countries within the 30 day tacit consent period; OR 3. The shipment is directed at a recovery facility pre-authorized for that type of waste within the OECD area; such an authorization has not been revoked, and no objection has been received from any of the concerned countries." (NOTE: The notifier may delete sentences that are not applicable.) **and** - Appropriate signatures for each custody transfer.
HW.104. A U.S. notifier must comply with special manifest requirements (40 CFR 262.84(c) and 262.54(a), (b), (c), (e), and (i)).	Verify that the tracking documents contain the following: - The name and address of the foreign consignee (and any alternate consignee) in place of the designated facility's name, address, and EPA ID number **and** - The point of departure from the United States indicated in the Special Handling Instructions and Additional Information section. Verify that a copy of the manifest is provided for delivery to the U.S. Customs official at the point of departure from the U.S.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.105. A primary exporter must file an annual report with EPA by March 1 of each year regarding hazardous waste exported for recovery during the previous year (40 CFR 262.87(a)).	Verify that an annual report has been submitted by March 1 of every year for hazardous waste exported for recovery during the previous calendar year. Randomly check several annual reports to determine whether they contain the following information for all hazardous waste exported for recovery during the previous year: - The EPA ID number, name, mailing and site address of the notifier filing the report - Calendar year covered by the report - The name and address of each final recovery facility - For each final recovery facility and each waste exported: a description of the waste, the EPA hazardous waste number, the OECD waste type and code, the DOT hazard class, the EPA ID number for each transporter used, the total amount of waste shipped, and the number of shipments - Under certain circumstances, the efforts used to reduce the volume and toxicity of the waste and the change achieved during the previous year in comparison to earlier years **and** - Certification signed by the primary exporter that states the following: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."
HW.106. A primary exporter must file an exception report with EPA under certain circumstances (40 CFR 262.87(b)).	Verify that an exception report is filed with EPA each time any of the following occurs: - The notifier does not receive a copy of the tracking document signed by the transporter stating point of departure from the U.S. within 45 days of acceptance by the initial transporter - Within 90 days from the date the waste was accepted by the initial transporter, the notifier does not receive written confirmation from the recovery facility that the waste was received or - The waste is returned to the U.S.
HW.107. A primary exporter must maintain records that relate to export activities (40 CFR 262.87(c)).	Verify that the following records are kept for the appropriate period of time: - Each notification of intent to export and all written consents obtained (at least three years from the date the hazardous waste was accepted by the initial transporter) - Each annual report (at least 3 years from the due date of the report), **and** - Any exception reports and each confirmation of delivery received from the recovery facility (at least 3 years from the date the initial waste was received from the recovery facility).

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
Exports of Hazardous Waste (Except to the OECD Member Countries) for Recovery	
HW.108. A primary exporter of hazardous waste must comply with notification requirements (40 CFR 262.53(a) and 262.53(b)).	Determine if the facility imports/exports hazardous waste. Verify that 60 days prior to the initial shipment of hazardous waste to each country in each calendar year, the facility has notified the EPA (in writing) of the following: - Name, mailing address, telephone number, and EPA identification number of the primary exporter - By consignee, for each hazardous waste type: -- identification of the hazardous waste shipped by EPA identification number -- DOT shipping name, hazard class, and importer for the waste -- estimated frequency/rate at which such wastes(s) is to be exported -- estimated total quantity (in units) -- all points of entry to and departure from each foreign country the waste will pass through -- a description of the approximate length of time the waste will remain in each country, and how it will be handled there -- the mode of transportation used to transport the waste and type(s) of containers used -- description of the treatment, storage, or disposal method to be used in the receiving country -- name and address of the foreign consignee.
HW.109. The primary exporter must attach a copy of an EPA Acknowledgment of Consent (that confirms the consent of the foreign country to receive the waste) to the shipment of hazardous waste to a foreign country (40 CFR 262.52(c), 262.53(f) and 262.54(h)).	Verify that a copy of the EPA Acknowledgment of Consent is on file by checking the records. Verify that a copy of this document was attached to the shipment.
HW.110. Primary exporters of hazardous waste must require confirmation of the delivery of the hazardous waste and a description of any significant discrepancies between the manifest and the shipment (40 CFR 262.54(f)).	Verify that the facility has been receiving confirmation of delivery. Determine if there are any notations of discrepancies.
HW.111. Primary exporters of hazardous waste are required to comply with general manifest requirements with certain modifications (40 CFR 262.54(a) through 262.54(e) and 262.54(i)).	Verify that the manifest copies comply with the general manifest requirements of 40 CFR 262.20 through 262.23. Determine if the following modifications are made by reviewing the manifest copies: - The name and address of the foreign consignee (and any alternate consignee) is put in the place of the designated facility's name, address, and EPA number. - The point of departure from the United States is indicated in the Special Instructions and Additional Information sections. - This statement, "and conform to the terms of the attached EPA Acknowledgment of Consent," is added to the end of the first sentence of the certification in Item 16. Verify that a copy of the manifest is provided for delivery to the U.S. Customs official at the U.S. point of departure.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.112. Primary exporters of hazardous waste are required to follow specific procedures when a shipment cannot be delivered to the designated or alternate consignee (40 CFR 262.54(g)).	Verify that when a shipment cannot be delivered, the primary exporter does one of the following: - Notifies the EPA of a change in the conditions of the original notification to allow shipment to a new consignee and obtains an EPA Acknowledgment of Consent prior to delivery, or - Instructs the transporter to return the waste to the primary exporter in the United States or designates another facility within the United States. Verify that the facility instructs the transporter to revise the manifest to reflect changes made.
HW.113. Primary exporters of hazardous waste are required to file an exception report under certain conditions (40 CFR 262.55).	Verify that an exception report was filed if: - A signed copy of the manifest from the transporter containing the following information was not received within 45 days from the day it was accepted by the initial transporter: -- date of departure of the waste from the United States -- place of departure of the waste from the United States - Within 90 days from the date the waste was accepted by the initial transporter, the facility has not received a written confirmation from the foreign consignee stating that the hazardous waste was received - The waste is returned to the United States.
HW.114. The primary exporter must file an Annual Report with the regulatory agency by March 1 of each year regarding hazardous waste exported during the previous year (40 CFR 262.56).	Verify that an Annual Report has been submitted by March 1 of every calendar year. Verify that the Annual Reprts contain the following information for all hazardous waste exported during the previous calendar year: - Type, EPA hazardous waste number, DOT hazard class and name for each hazardous waste(s) exported - EPA identification number for each transporter (where applicable) - Quantity of hazardous waste(s) exported - Frequency (dates) of hazardous waste(s) exported - Ultimate destination for all hazardous waste(s) exported - Efforts used to reduce the volume and toxicity of the waste (and the changes achieved during the year in comparison to previous years) - A certification signed by the primary exporter that states: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."
HW.115. Primary exporters of hazardous wastes must maintain additional records that relate to their export activities (40 CFR 262.57).	Verify that the following are kept for at least three years: - A copy of each notification of intent to export - A copy of each EPA Acknowledgment of Consent - A copy of each confirmation of delivery (signed manifests) of the waste - Annual reports. (NOTE: Periods of retention are automatically extended during the course of any unresolved enforcement action.)

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
Imports of Hazardous Waste for Recovery Within the OECD Member Countries	
HW.116. A U.S. importer of amber list or red list hazardous waste (see 40 CFR 262.89 and 262.82) destined for recovery operations (see 40 CFR 262.81(k)) from an OECD member country (40 CFR 262.58(a)) must execute a valid written contract or chain of contracts with the recovery facility that specifies the responsibilities of each (40 CFR 262.85).	Determine whether the exporting country is an OECD member country [Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States]. (NOTE: The following countries have become OECD member countries since EPA promulgated its regulations in 1996: South Korea, Czech Republic, Poland, and Hungary. EPA plans to amend its regulations to reflect these new OECD countries. In the interim, EPA strongly recommends that exports to these new OECD countries comply with applicable OECD regulations, since these countries would expect compliance with OECD requirements for shipments they receive from the U.S.) Determine whether the waste is for recovery operations, including resource recovery, recycling, reclamation, direct re-use or alternative uses. Verify that contracts specify the name and EPA ID number, where available, of: - The generator of each type of waste - Each person who will have physical custody of the waste - Each person who will have legal control of the waste **and** - The recovery facility. Verify that contracts specify: - Which party will assume responsibility for alternate management of the wastes if it cannot be carried out as described in the notification of intent to export - That the person with actual possession or physical control over the waste will immediately notify the notifier and the competent authorities of the exporting and importing countries and transit country if wastes are located in a country of transit - That the person specified in the contract will assume responsibility for the adequate management of the wastes including, if necessary, arranging their return to the original country of export - Notification prior to re-export to a third country **and** - Provisions for financial guarantees.
HW.117. A U.S. importer must ensure that a tracking document accompanies each shipment of amber or red list wastes until it reaches the final recovery facility (40 CFR 262.84).	Verify that a copy of the tracking document was attached to the shipment. Verify that the tracking document included all information contained in the notification and the following: - The date shipment commenced - Name, address, telephone and telefax numbers of primary exporter, if different than the notifier - Name and EPA ID number of all transporters - Identification of means of transport, including types of packaging - Any special precautions to be taken by transporters - Signed certification required by 40 CFR 262.84(b)(6) **and** - Appropriate signatures for each custody transfer.

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
HW.118. A consignee must comply with general manifest requirements with certain modifications (40 CFR 262.84(c) and 262.60).	Verify that the manifest copies comply with the general manifest requirements of 40 CFR 262.20. Determine if the following modifications are made by reviewing the manifest copies: - The name and address of the foreign generator and the importer's name, address and EPA identification number are put in place of the generator's name, address and EPA identification number **and** - The U.S. importer (or his agent) must sign and date the certification statement in place of the generator's signature and obtain the signature of the initial transporter.
HW.119. Each person in the U.S. that has physical custody of the waste until it arrives at the recovery facility must sign the tracking document (40 CFR 262.84(d)).	Verify that the U.S. transporter, consignee, and owner or operator of the recovery facility have signed the manifest.
HW.120. An owner/operator of a U.S. recovery facility must send signed copies of the tracking document to the notifier, to EPA, and to the competent authorities of the exporting and transit countries within three days of receipt of imports (40 CFR 262.84(e)).	Verify that the facility sends signed copies of the tracking document to the notifier, to EPA, and to the competent authorities of the exporting and transit countries within the three days.
HW.121. A facility that has arranged to receive hazardous waste from a foreign source must notify EPA (40 CFR 264.12(a)(1) and 265.12(a)(1)).	Verify that the facility notifies the appropriate EPA Regional Administrator in writing at least four weeks prior to the date the waste is expected to arrive at the facility. (NOTE: Notice of subsequent shipments of the same waste from the same foreign source is not required.)
Imports of Hazardous Waste (Except from the OECD Member Countries) for Recovery	
HW.122. Any person who imports hazardous waste must comply with general manifest requirements with certain modifications (40 CFR 262.60).	Verify that the manifest copies comply with the general manifest requirements of 40 CFR 262.20. Determine if the following modifications are made by reviewing the manifest copies: - The name and address of the foreign generator and the importer's name, address and EPA identification number are put in place of the generator's name, address and EPA identification number **and** - The U.S. importer (or his agent) must sign and date the certification statement in place of the generator's signature and obtain the signature of the initial transporter.
HW.123. A facility that has arranged to receive hazardous waste from a foreign source must notify EPA (40 CFR 264.12(a)(1) and 265.12(a)(1)).	Verify that the facility notifies the appropriate EPA Regional Administrator in writing at least four weeks prior to the date the waste is expected to arrive at the facility. (NOTE: Notice of subsequent shipments of the same waste from the same foreign source is not required.)

Compliance Category: Hazardous Waste Management	
Regulatory Requirement or Management Practice:	**Reviewer Checks:**
Waste Minimization/Pollution Prevention	
HW.124. The generator should have in place a waste minimization program to reduce the volume and toxicity of hazardous wastes generated. The generator is required to sign the Generator's Certification statement on each manifest, attesting to its waste minimization program.	Review the generator's waste minimization program to determine if the program includes practical methods for reducing the volume of hazardous wastes generated. Determine whether any or all of the following methods suggested by EPA are incorporated into the program: - The generator retains information that documents waste minimization activities. - The program includes: -- provisions for top management assurance that waste minimization is a company-wide effort -- characterization of waste generation and waste management costs -- periodic waste minimization assessments -- a cost allocation system -- encourages technology transfer -- program implementation and evaluation -- waste minimization employee awareness plans -- adequate funding -- clearly delineated roles both within the company and among each facility generating waste. - Conclude if facility actions are resulting in the reduction of hazardous wastes. (NOTE: Refer to Interim Final Guidance to Hazardous Waste Generators on the Elements of a Waste Minimization Program, 58 FR 31114, May 28, 1993.)